

# AMERICAN RAILROAD JOURNAL.

STEAM NAVIGATION, COMMERCE, FINANCE,  
ENGINEERING, BANKING, MINING, MANUFACTURES.

ESTABLISHED IN 1831.

PUBLISHED WEEKLY BY JOHN H. SCHULTZ, AT NO. 9 SPRUCE ST., NEW YORK, AT FIVE DOLLARS PER ANNUM.

SECOND QUARTO SERIES, VOL. XIX., No. 41.]

SATURDAY, OCTOBER 10, 1863.

[WHOLE No. 1,434, Vol. XXXVI.]

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## American Railroad Journal.

New York, Saturday, October 10, 1863.

The postage on the AMERICAN RAILROAD JOURNAL is only twenty cents per annum, payable quarterly in advance at the Post office where the paper is received.

### Enlargement of the Champlain Canal.

A convention was held at Whitehall on the 25th ult., composed of delegates representing the large commercial and forwarding interests connected with the Champlain Canal. The Hon. Geo. W. Goff, of Port Henry, was unanimously elected President, and W. L. Van Alstyne, Troy, J. C. Howe, Waterford, C. W. Armstrong, Albany, T. T. Vaughn, Whitehall, C. F. Norton, Plattsburg, and W. I. Smith, Whitehall were chosen Vice Presidents. J. W. Fuller, of Troy, A. G. Micklejohn, Putnam, and Oliver Bascom, Whitehall were appointed Secretaries. The object of the meeting was as stated by the President, to obtain such an enlargement of the Champlain Canals will accommodate its increasing business. It has been of late years greatly neglected, the necessary repairs have not been made, and it is so narrow in many places that two boats cannot pass each other. Some of the locks have been enlarged, and others remain of the old dimensions; in short it may be considered to be in a state of dilapidation. It appears that the Canadian trade is on the increase. The

free entries of Canadian products in 1862 at Rouse's Point amounted to \$4,000,000, and the custom duties were \$200,000. This year the amount will be \$7,000,000 of the one class, and \$300,000 of the other, being an increase of 50 per cent at the Custom House as compared with the previous year. Resolutions were adopted to obtain from the Legislature better management of the canal and also its enlargement.

The whole subject was fully and ably debated, by Messrs. Vaughn, G. H. Stewart, J. Potter, W. Crocker, (Civil Engineer,) W. Myers and others.

A Committee also reported another set of resolutions, recommending the abolishment of the system of repairs by contract, and the deepening and widening of the canal so as to pass boats drawing 4 feet 6 inches of water. What we conceive to have been the most important point made at the meeting, was that brought forward by Mr. Van Alstyne, the Mayor of Troy, whose remarks and those of other gentlemen we quote from the Troy Daily Press. The speaker in answer to some inquiries as to the wishes of the business men of Troy, said he had no doubt that a movement for immediate improvement would find favor in that city, if it was understood that another movement was at once to follow for the enlargement of the canal to the capacity of the Erie. He was also well satisfied that should it be deemed advisable to attempt to enlist the aid of the General Government to make the Champlain a SHIP CANAL, that Troy would warmly and earnestly favor that. It was certainly wise and commendable to look well after our home business interests, and to demand our rights of the State as business men. It may also be well to remember that we are citizens of the Union, and as a people have National interests to protect and to be fostered. It is not best to confine our thoughts and aims wholly to "pent up Utica," when we have "one unbounded continent," and know right well that it is all ours. Already the subject of connecting inland waters with the great lakes has occupied considerable attention in Congress, and probably the subject will be discussed during the coming session. If the government takes definite action in the matter, its attention cannot fail to be directed to the Champlain Canal.

Mr. SANBORN, of Sandy Hill, moved the Con-

vention appoint a Committee of five to secure, if possible, the co-operation of the General Government in the Champlain or Ship Canal.

The President said he would state a fact which had come to his knowledge. He was credibly informed that the General Government has had recently at work a Corps of Engineers, looking after the feasibility of connecting the New York Canals with the Northern Lakes. He had no doubt the Government was making preliminary arrangements for connecting the Atlantic with the great internal waters of the country; and he believed an intelligent committee might act with efficiency in promoting what now seems likely to become a great national undertaking.

Mr. Northup advocated the enlargement of the Canal, and said the Convention should think of nothing less. Ask for little and you will get nothing. Ask for what you want, for that to which you are entitled, stand up for your rights, like men who are in earnest, and you will succeed. We may not live, but our children will, to see the Champlain a Ship Canal accommodating a great international trade, bearing on its waters iron clads and Monitors. He hoped the Convention would be satisfied with nothing less than an immediate enlargement on a liberal scale.

Mr. Sanborn's motion for the appointment of a committee, was adopted, and the Chair named the following gentlemen, as the Committee:—

Hon. John A. Griswold, Troy.

J. W. Freeman, Troy.

Hon. O. Kellogg, Essex Co.

J. K. Sanborn, Sandy Hill.

Oliver Bascom, Whitehall.

The following gentleman were appointed a Committee, under the recommendation of the Business Committee: L. J. Stark, New York; C. W. Armstrong, A. Roberston, G. C. Burdett, Thomas Coleman, Troy; G. H. Stewart, Waterford; G. H. Crocker, Sandy Hill; G. W. Gouff, J. C. Wetherbee, Port Henry; T. T. Vaughn, W. I. Smith, Whitehall, C. F. Norton, Plattsburg; Geo. Hyde, Champlain.

The following resolution, additional to the regular series, was adopted:—

Resolved, That this Convention will apply to the next Legislature, for an appropriation sufficient to bear the expense of bottoming out the Champlain

Canal to the depth of three inches additional to the present depth; and that the Committee named, in pursuance of the recommendation of the Business committee, be requested to wait upon the Legislature, present facts and statistics, and request that the appropriation be made.

The convention adjourned to meet at Troy on the 15th inst.

The subject of a ship canal having been taken up on this occasion, will we trust not be permitted to sleep.

To deepen the Champlain Canal a few inches is at best a petty improvement. Make it a ship canal which can be done at a very moderate expense, get the Montreal merchants to widen and deepen the Chamblee, or build the Caughnawaga Canal, and we shall have an internal navigation suited to the wants of commerce, and of immense value to the west, and to this State. It is but a waste of time to agitate for three or four inches of excavation. The Chicago people know too much to do anything of this sort. Are there not men and minds in Troy and Albany great enough to grasp this subject? Sufficient has been said to prove the entire practicability of the plan. The facts furnished in our columns alone, the details we have given, obtained from Engineers, and official reports, are enough to act upon, and secure by a combined and systematic effort the adoption of the plan. We especially look to the energetic Mayor of Troy, to set the proper machinery in motion, so that the people on the banks of Lake Champlain and the Hudson, can be brought to act on this subject as one man.

#### Hartford and New Haven Railroad.

The income of the road for the fiscal year ending August 31, 1863, is as follows:

From passengers.....	\$557,906 19
" freight.....	354,509 87
" rents, mails and express.....	46,043 35
	<b>\$958,459 41</b>

And the expenses were:

Repairs of road & bridges.....	\$100,028 35
Material and labor on engines and cars.....	104,538 50
Station repairs and improvements.....	9,865 47
Transportation and general expenses.....	151,872 51
Wood, coal and oil.....	82,372 48
Lost and damaged goods, gratuities, etc.....	2,465 95
	<b>\$451,143 26</b>
Balance of interest acc't.....	49,548 65
Taxes—State & National.....	45,913 35
	<b>546,605 26</b>

Net receipts.....\$411,854 15

The total number of passengers carried on the road during the year, including soldiers, is 663,290, which exceeds by 151,739 the number carried in the preceding year, which increase is almost wholly in regular passengers, the number of soldiers carried varying but very little from that of the previous year.

The total number of tons of freight transported is 232,639, which exceeds that of the previous year by 42,369.

Miles run by passenger trains.....	263,905
" freight.....	117,621
" other.....	22,771

Total miles run.....404,297  
which is 56,937 miles in excess of the number for

the previous year, the increase being mostly by freight and other extra trains.

The gross income of the road exceeds that of the previous year in the sum of \$211,158 61. Of this increase \$145,454 01 is derived from passengers, and \$61,913 33 from freight. The report says:

The same fortunate exemption from serious accident which has characterized the road in years past, has attended its operations during the year just closed.

The stockholders will probably not fail to observe a very considerable increase in the expenditures in all the several items of charge for operating the road. It has been necessary to advance the rate of compensation to all the employees of the company, and the cost of every item which is required in the business has increased with the general inflation of prices throughout the country. An increased quantity of new iron has been placed in the track, and very large additions have been made to the equipment of the road in engines and cars, most of which have been constructed in the company's shops, and the cost of which has all been included in the accounts of current expenses for the year.

Taxes, State and National, now constitute a large item of expenditure, being for this year nearly two per cent. upon the capital stock of the company, and as the taxes payable to the State are assessed at three-fourths of one per cent. upon the market value of the stock, they increase with the increased appreciation of the stock by those who hold it.

The passenger fares, between most of stations, were slightly increased in May last, so that all the first class fares should correspond as nearly as practicable to a uniform rate of three cents per mile. The result of this increase of fares have to some extent furnished the means of meeting the three per cent. National tax upon the gross passenger earnings of the road.

A new wharf, in connection with the Tomlinson Bridge property at New Haven, has been constructed during the year. This structure is about 800 feet in length, by 60 in width, and is an improvement which was indispensable. It now furnishes greatly increased facilities for receiving upon the cars the constantly increasing quantities of coal, lumber, and other heavy freights which are consigned by vessels to New Haven, to be forwarded by the road.

The cost of this work has been paid by the company, and is charged to the account of the Tomlinson Bridge Company.

The new piers for the proposed iron bridge over the Connecticut River, mentioned in the report of last year, have been substantially completed, and are now ready to receive the superstructure. The same unsettled condition of the iron market alluded to in that report, has as yet prevented the making of a satisfactory contract for the bridge. It is hoped, however, that before the expiration of another year, a more favorable opportunity for effecting this object will occur, and that the work will be commenced under such arrangements as to ensure its prompt completion. There has been paid on account of the new piers during the year the sum of \$26,963 49, as will appear by the Secretary's report.

The rapidly increasing business at Springfield Station, especially in coal and other heavy freight, has demonstrated the inadequacy of the grounds heretofore owned by the company at that point to the proper accommodation of its business. A purchase of real estate there at a cost of about \$12,000 has recently been made, which, when properly improved, will, it is believed, afford the facilities necessary to the convenient transaction of the business of the road at that station.

It becomes necessary to repeat once more the statement that the suit with the New York and New Haven Railroad Company has not yet reached a conclusion. The decision of the referee has been postponed, from time to time, on account of his serious illness, but there is reason to antici-

pate a report from him now within a short period. In the meantime all the transactions between the two companies are continued in the same unsatisfactory manner as heretofore.

The notice for this annual meeting calls the attention of the stockholders to the subject of an Act of the Legislature of Massachusetts, authorizing the issue of additional capital stock.

This act was passed some years since, and authorizes the issue of six hundred and fifty thousand dollars of additional capital stock, to be disposed of as shall be determined by the stockholders.

In view of the large outlay which will be required by the construction of the Connecticut River Bridge, and other additions to the permanent investments which the interests and the increasing business of the company may demand, it will be for the stockholders to determine whether to accept the provisions of this act, so as to enable the company to provide for these expenditures by an increase of capital from time to time, as circumstances may render expedient.

A regular dividend of three dollars per share, and an extra dividend of five dollars per share, both free of Government tax, have been declared payable to the stockholders on the 1st of October next.

The income account of the company for the past year is as follows:

Cash on hand September 1, 1862.....	\$157,444 27
Income of the road.....	958,459 41
Sale of house and gravel pit.....	275 00
	<b>\$1,116,178 68</b>
Dividends paid.....	\$308,480 00
Interest.....	49,548 65
Operating and repairing road.....	470,942 01
State and National taxes.....	45,913 35
Sundry claims by Colton fire.....	8,241 95
Real estate, Springfield.....	11,809 72
Connecticut River (new) bridge....	26,963 49
North Haven bridge.....	3,064 73
Balances due company increased ..	3,774 40
Cash.....	187,440 38

**\$1,116,178 68**

The following from the Ledger, presents a general statement of the affairs of the company, September 1, 1863:

Capital stock.....	\$2,350,000 00
Bonds.....	927,000 00
Contingent fund.....	517,621 52
Reserved fund.....	150,000 00
Profit and loss.....	200,354 15
Dividends unpaid.....	9,216 00
Debts due by the company.....	26,863 30
	<b>\$4,181,054 97</b>
Construction.....	\$3,158,644 52
Middletown Extension Railroad....	27,664 38
Real estate, land, dwellings, &c....	73,787 40
Tomlinson bridge stock.....	102,888 67
Advances to Tomlinson Bridge Co..	38,817 31
Equipments, engines, and cars.....	254,000 00
Wood, stock, and tools.....	155,476 03
Debts due the company, including accounts due from N. Y. & N. H.	
R. R. Co., unadjusted.....	182,336 28
Cash on hand.....	187,440 38

**\$4,181,054 97**

The office of the company is at Hartford, Ct. The directors chosen September 16, 1863, are as follows:

President.—C. F. POND.

Directors.—Charles F. Pond, Julius Catlin, Cornelius Vanderbilt, Henry Coit, John A. Robinson, Ezra C. Read, Chester W. Chapin, A. G. Hazard, Samuel H. Parsons.

Superintendent.—E. M. REED.

Secretary.—S. P. CONNER.



### Construction of Railroads.—Uncertainty in Describing Appropriated Lands.

IN A PROCEEDING TO APPROPRIATE LANDS BY A RAILROAD COMPANY IN OHIO, A CERTAIN DESCRIPTION OF THE LANDS TAKEN DECLARED SUFFICIENT.

This was an action brought by Prentice & Maddocks against the Cleveland and Toledo R. R. Co., for the recovery of a piece of land one hundred feet in width across lot 15, in river tract 87, in Lucas County.

On October 25th, 1852, one Robert Piatt owned the whole of said lot 15, and on that day conveyed the same to Prentice and Maddocks. Prior, however, to this conveyance, the Cleveland and Toledo Railroad Company had instituted proceedings to appropriate to its use a portion of this lot. The appropriation proceedings were instituted under an act of Ohio, passed February 11, 1848, "regulating railroad companies;" and at the time Piatt was a non-resident of the State.

The instrument of appropriation filed by the company in the office of the Clerk of the Common Pleas of Lucas County, February 28, 1851, described the land intended to be appropriated, as follows:

Fifty feet wide on each side of said railroad, as last surveyed, through subdivision lots, Nos. 1, 2, 3 and 4, of fractional section No. 1, of township 10, south of range 7 east, commencing on the north bounds thereof; thence westerly and southerly on and near the northerly bounds thereof to a point in the west line of said No. 4, near the northwest corner. Also lots No.'s 11, 12, 13, 14 and 15 (the lot in question,) etc., "of the subdivision of river tract No. 87."

On March 4, 1851, the company gave a notice to Piatt, by publication, stating the substance of the instrument of appropriation, and giving the description of the land as above. On April 21, 1851, upon the application of the company, appraisers were appointed and a warrant issued. The following is a copy of the return of the appraisers:

"In lot fifteen, subdivision of river tract 87, in the 12 miles square reserve, at the foot of the rapids of the Miami of Lake Erie, 64-100 acres. Value of land appropriated ..... \$25.60  
Damages .....  
Benefit to owners ..... 25.60

Amount to be paid to owner ..... \$50.00

The company took possession of the land immediately after the appraisers made their return, and proceeded to construct its railroad thereon, and thereafter remained in possession of the same, using it for the purposes of its road. Of all of which Prentice and Maddocks had full knowledge when they bought of Piatt.

On an appeal from the Court of Common Pleas, to the District Court of Lucas County, at its April term in 1860, it was decided that the railroad company, by its appropriation proceedings, acquired no right or title to the land in controversy, and that Prentice and Maddocks were entitled to its possession, and rendered judgment accordingly. The company then moved for a new trial; the motion was overruled and they then appealed to the Ohio Supreme Court. The point involved was whether the description already given, was sufficiently certain and definite under the statute. The Supreme Court now decide that it was and render judgment in favor of the company. The

following is the opinion rendered at the decision of the case; with the exceptions of the cases referred to and considered:

SUTLIFF, C. J.—The plaintiffs below, in support of their claims to recover the lands in question, showed by their proof a conveyance to them on the 23d day of October, 1852, of lot No. 15, by Robert Piatt, who held the title at the time of the location of the railroad, and who, it is admitted continued to hold a perfect title at the time of executing his deed, unless divested of the land in controversy by the proceedings of the railroad company, as stated. If, therefore, at the time of the institution of the action below, Piatt, had he made no conveyance, could have recovered the land from the company so occupied through lot 15, as their road track, then and in that case Prentice and Maddocks, his grantees, were entitled to recover; otherwise they were not.

The defendants below relied upon the proceedings of appropriation which it gave in evidence to show the lands appropriated as a railroad track on the 21st of April, 1851; and it seems to be conceded by the defendants in error that with one exception these proceedings were regular, and that all the steps were taken to operate as an appropriation.

But it was objected by the plaintiffs below that the description of the land intended to be appropriated by the proceedings was too vague and uncertain to admit of the proceedings being operative to appropriate either the lands in question or any other lands. It is insisted by the plaintiffs in error that the description was sufficiently certain, and in fact, embraced the lands in question, and that the district court, therefore, erred in not regarding the lands legally appropriated by the company for its railroad track through said lot, No. 15.

\* \* \* \* \*

Our statute authorizes the company to "enter upon any lands for the purpose of examining and surveying its railroad line, and appropriate so much thereof as may be deemed necessary," etc. In this case the notice mentions the survey as having been made, as the statute evidently contemplates it should be, before the proceeding to appropriate. The description in the notice is as definite a description of a surveyed railroad track as could well be made; and if the survey had in fact been made, such a description in a deed would be even more certain than could be expressed by courses and distance; and would be beyond doubt a sufficient description in the deed of conveyance to pass the title in the railroad track to the company. But the record only shows that the road bed had been surveyed and staked out previous to the 1st day of April; yet the return of the commissioners that they had viewed and appraised the lands described, and giving as they do, the precise quantity of land, clearly implies that they found the road surveyed as described in the notice. Indeed we do not understand counsel to insist particularly upon the want of certainty at the time the appraisers made their view and appraisal on the 21st of April. But it is insisted that the plaintiffs in error did not, on the trial below, make proof that the road bed was, in fact, surveyed and staked out on the 28th of February, or on the 4th of March, 1851, at the time of applying for the appropriation and giving

notice to Piatt by advertisement. To this objection, we think, the defendant below might well have claimed, under the law and circumstances of the case, that after the proof of so much by the company in support of the defense, the burden of proof was reasonably shifted upon the plaintiffs below to rebut the presumptions in favor of the title of the company, arising from their proof. Indeed, it may well be questioned whether a survey made, and monuments set along the land to be appropriated, as described in the notice, as early as the 1st of April would not have been sufficient. But in this case, from all that appears upon the record, the reasonable presumption would be that the petition correctly described the land as then surveyed. The proof it is true is not positive that the survey was made as early as prior to the 1st day of April; and there is no proof or circumstances tending to show that it was not in fact made, as recited in the notice, at the time the notice was given.

It certainly, is not an unreasonable presumption, after proof of the fact that a road or canal had been surveyed and staked out, that when worked and in operation as a public thoroughfare, without any objection to the *locus in quo*, it should, if afterwards questioned, be presumed to have been opened *where* surveyed and located. And more especially is such presumption clear, in such a case where the stakes or monuments set are, after its completion found to be all removed, as in the case of a railroad or canal they necessarily must be when opened on the line so surveyed and staked.

We therefore, regard the proof made by the defendants below, in relation to the proceedings to appropriate the lands in question, as by no means void for uncertainty of description; but as *prima facie* embracing the lands in question, and sufficient in law unless rebutted by countervailing proof on the part of the plaintiffs below; and no such proof appears to have been offered upon the trial.

The judgment of the district court must therefore be reversed with costs. And this court, thereupon, proceeding to render such judgment in the case as the district court should have rendered, order that the petition so filed by the plaintiffs below be dismissed; and it is thereupon adjudged that the defendants below recover of the plaintiffs below their costs.

Judgment accordingly.

### Northern Central Railway.

In the Baltimore City Council, on the 30th ult., the ordinance granting certain privileges to this company to enable them to complete the road entire, from Sunbury to tide water at Canton, was passed, with a proviso that the work shall be completed by the 1st of January, 1868. The ordinance gives the assent of the city to the construction by the company, within the city limits, of a lateral branch railroad from any point on the road to the water line of the Patapsco River, east of Jones' Falls, without any other condition or restriction than those imposed by the act of assembly of 1853, chapter 191. Also said assent is given to the company to alter the location of its present track, provided it is not put down west or south of its present location, in any part thereof between Calvert Station and the city limits. It is also required that the written consent of the

owners of two-thirds of feet of ground binding on or fronting on that part of the street, lane or alley, to any alteration in the grade thereof, shall be obtained—the cost thereof to be borne exclusively by the company.

It is required that the chief officers of the company, including the Treasurer, Secretary, Superintendent, Master of Transportation and Master of Machinery, shall be in the city; that the elections and meetings of the directors shall be held there; also, that within the limits, or within one mile thereof, the company shall establish and forever maintain its principal workshops for all purposes for which such shops are required, and that the city reserves to itself the right—if the charter admits of the same—to elect two directors annually in perpetuity to represent the city in the company. It is made a condition of the ordinance that the company shall commence and prosecute the construction of a double line of railway from Baltimore to Cockeysville, in Baltimore county, with as much speed as due economy of labor will permit. The company is also required to extend to the Western Maryland Railroad Company all customary facilities to enable that company to convey passengers and freights to and from the junction at the Relay House; also, to sell through tickets to and from all the regular stations on the Western Maryland Railroad.

Should the company refuse or neglect to comply with each or any of the provisions of the ordinance, then all privileges either in this or ordinance 57 of 1854, approved June, 1854, shall be forfeited and revert to the city. It is also made a condition that the company shall not discriminate in its rates for transportation over the road to the injury of the trade of the city, or of any party doing business therein.

#### Grand Trunk Railway of Canada.

The following is the report of the directors for the half-year ended June 30, 1863:—

Earnings of the half-year.....£434,340  
Deduct ordinary working expenses.....277,204

Net balance over ordinary working exp. 157,136  
Deduct renewals of permanent way.....32,963

Net balance, June, 1863.....£124,173

1. The accounts of the half-year exhibit a total receipt from traffic and all other sources of 434,340, against 382,993, for the corresponding half of 1862, or an increase in 1863 over 1862 of 51,347, or 13.45 per cent., and against 347,110, for the corresponding half of 1861, or an increase in 1863 over 1861 of 87,230, or 25.13 per cent.

The tabular statements in page 29 show that nearly every item of the company's traffic revenue has increased during the half-year, the main exception being the local passenger traffic. In that item the decrease of 1,052, is much more than accounted for by the extraordinary receipt caused by the movement of troops in the early part of 1862, the receipts for military services in the corresponding half-year of 1862 having been 12,630, as against 1,858, in 1863.

2. The working expenses show a total expenditure of 277,204, or 68.83 per cent. on the gross receipts, as compared with 77.24 per cent. in the corresponding period of 1862. Adding renewals in both cases, the expenditure compares as follows:—

	Work'g exp.	Renewals.	Total.
June, 1863	£277,204	£32,962	£310,166
" 1862	295,855	23,701	319,556

Increase in renewals	9,261	
Decrease in ordinary and total expenditure.....	£18,651	£9,390

It will be observed that, as compared with 1862, while a gross increase of revenue of 51,347, has been earned, the total expenditure has been reduced by no less than 9,390, including in that expense the increased charge for renewals.

The following statement exhibits the progress of

the net revenue of the company since 1859 inclusive:—

Year.	June half-years.	Dec. half-years.	Total.
1859	£20,868	£52,490	£73,358
1860	46,001	56,684	102,685
1861	46,786	95,708	142,494
1862	63,436	106,798	170,234
1863	124,173		

4. From the net profit of the half-year, viz., 124,173, there has to be deducted a nominal amount of 10,462, for postage and military service receipts, the charge for the former being still unsettled and the money being still detained by the Provincial Government. The sum of 6,589, for loss on American currency—an item of loss which will, it is feared, be even heavier in the current half-year, with its larger traffic—has also to be deducted.

5. These deductions leave the sum of 107,122, which has been applied as follows:—

In payment of interest, &c., on lands	£1,534	12	7
Ditto ditto on mort. to Bank of U. C.	4,423	16	2
Ditto ditto promissory notes European Exchange.....		801	19
In payment of interest on British American Land Co's debentures.	616	8	9
Ditto ditto Montreal Seminary debentures.....	616	8	9
Ditto ditto Island Pond debentures.	2,700	0	0
Ditto half-yearly instalments Portland sinking fund.....	2,311	12	4
Ditto Atlantic and St. Lawrence lease (in full).....	32,763	7	11
Ditto Detroit Line lease in full ....	11,250	0	0
Ditto first preference bond interest for half-year.....	49,917	15	0
Balance carried forward to next account.....	185	19	0
	£107,122	0	0

6. The whole amount expended for renewals and improvements of the permanent way, ordinary and special, has been charged to revenue. The charge in the half-year is 9,261, in excess of that incurred in 1862. It has been decided to renew 100 miles of line laid with the hollow rails during the current half-year, and the apportionment of the cost will be involved in the proposed arrangement for the early substitution of "solid" in place of "hollow" rails on the whole of the main line, already discussed before the bond and shareholders and the details of which arrangement are still under the consideration of the board.

7. The unexhausted balance to the credit of net revenue account at 31st December, 1862, viz., 37,986, has been credited to capital account. The sum of 6,247, has been expended during the half-year in additional works and plant and has been duly debited to capital. The sum is the only real expenditure on "capital account," although that account is also charged with the amount of capitalised arrears of interest under the lease of the Atlantic and St. Lawrence line and with certain other sums of capitalised interest on second preference bonds (not included at 31st December last), and on adjusted debts, together with the commuted arrears of rent upon the Detroit and Port Huron. The amount which has hitherto stood in the "general balances" at the debit of the "Portland sinking fund" (a statement of which is appended to the accounts) has been transferred to capital account. The operation of this fund, which was intended gradually to liquidate the Portland city loans, will ultimately reduce the annual charge for bond interest, which interest forms a large part of the lease rent of the Atlantic and St. Lawrence line.

8. In the last report the directors stated that the Governor-General of Canada in council had proposed, by a minute of Council officially communicated to the company and dated 30th October, 1862, to introduce a bill in the then ensuing session of Parliament to establish a court of arbitration for the equitable settlement of the claims for the postal services performed by this and other companies for the province, and which, as con-

ducted over the Grand Trunk system, produce a very large share of the income of the Canadian post-office.

After much delay, a bill was accordingly introduced in April last, but before it could be read a second time the Government, who had previously expressed their inability to carry their proposed measure, was reconstructed after a vote of the House, and a dissolution of Parliament supervened. The Government so reconstructed having expressed their desire to dispose of this plain matter of business in an equitable manner and without prejudice to the company's position or claims, the managing director has again discussed the whole subject with the new Postmaster-General, the Hon. Mr. Mowatt; so far, however, no definite result has been arrived at.

The board claim nothing more than a just settlement, and they will still hope, however past events may have discouraged them, that an honest claim for payment for work done may be as honestly paid for by the Governor-General of Canada in council, representing a great country forming part of the British empire.

9. The Provincial Government has been unsuccessfully applied to release 42,500, second preference bonds, held by their financial agents in London to secure a loan on the postal revenue incurred in 1860, and which loan has, in the opinion of the board, been more than fully liquidated for some time past. The restoration of these securities was required in order to justify the outlay involved in building 300 new freight cars to provide for the demands upon the company's carrying power which the unusual abundance of the harvest now being gathered will make, and to enable also the erection, in this season, of the much needed central station at Toronto.

A further supply of cars and a few additional engines, which the board desire to have supplied, would go far to prevent any cause of complaint on the part of the public during the coming busy season. Until, however, the accounts with the Government are settled much inconvenience may have to be endured.

While alluding to the rolling stock, the board may report that upon the remodelling of the executive management in Canada in 1862 stock was taken, and has now been carefully checked and tested. A return is published showing the quantity of engines and cars purchased, and which are stated to have been delivered on to the line; the actual number of each class existing, and the number of cars already erected towards replacement of the deficiency discovered. Returns of rolling stock will be regularly published in future.

10. The whole of the creditors of the company in England and many of the Canadian creditors, including the largest, viz., the Bank of Upper Canada, have been finally settled with under the terms of the Arrangements Act, 1862, and deeds of release and discharge have been executed; there now remain the unsettled accounts with the Provincial Government, against which the board consider the company has, if fairly dealt with, a much larger set off; the demand of Mr. Turcotte, in reference to the "Three Rivers and Arthabaska" branch, which, fair negotiations having so far failed, may have to be disposed of through the salutary operation of the courts of law; and a few very minor claims, the exact amounts being in dispute. In one of these cases, however, vexatious litigation has been attempted, and will meet with energetic and, no doubt, successful resistance.

The claim of the Portland Car Company, the only old outstanding account in the United States, is still unadjusted, but the board have every reason to expect early settlement by friendly negotiation.

11. The anxiety of the board to preserve cordial relations with the Great Western Company of Canada has been often exhibited during the past two years, and the last report states that an offer had been made on behalf of the Grand Trunk Railway Company to the board of the Great Western Railway Company to submit all matters in difference to arbitration, and had been declined.

During the past half-year questions have arisen



as the board foresaw, which might have been thus quietly disposed of; and if further and needless competition should unfortunately now arise, your board, while protecting your just rights, will not be responsible for any untoward consequence to other interests.

12. The use by the Grand Trunk Railway Company, under agreement, of the "Bonaventure street" station at and of the lines near Montreal, also of the new junction line connecting the mixed gauge near "The Tanneries," with the lines of the Montreal and Champlain (whose railways of 83 miles connect at Rouse's Point with the Vermont Central Railway for Boston at Moore's Junction with the Plattsburg Company for New York and at St. John's with the Chambly line) has tended much to promote better access to the city of Montreal and greater facility and convenience of working generally. Since these new arrangements, dating from the autumn of 1861, an important change of traffic has sprung up, proving the desirability, if not necessity, of a closer and permanent union—such an union as would render the interests of the two companies identical as regards the production of the largest total amount of net revenue, without, at the same time, making either company responsible for the separate bonds, debts, or engagements of the other. With these objects in view, an agreement has been prepared for the consideration of the bond and shareholders, and the board will recommend its adoption at the ensuing meeting, to be made special for the purpose. The agreement proposes to accord to the Champlain Company one-fifteenth of the total net profit earned on the two systems, with a stipulation that for a short probationary period of three years the share of the Champlain Company shall not be less than \$100,000, or about 20,000% per annum.

The net earnings of the Champlain Company's undertaking were \$120,000 in the year 1862—the last year for which the accounts are made up, and no risk of deficiency is apprehended by the company's executive in Canada, whose reports have been carefully considered.

The proposed extension of the Grand Trunk Railway from Bonaventure street station to the Harbor of Montreal, together with the construction of elevators and warehouses capable of great extension at deep water, is likely to be realised, and the corporation of Montreal have agreed to grant 10,000% towards the cost of the property required to be taken.

These measures are further arguments weighing with the board in favor of an alliance so guarded with the Champlain Company, the confirmation of which they therefore recommend.

13. A service of screw propellers, arriving and departing three times each way per week, between Chicago, Milwaukee, and Michigan Lake ports and Sarnia, commenced to run at the close of April and has already had a good effect upon the traffic receipts of this company.

14. The through arrangements with the Buffalo and Lake Huron Company referred to in the last report have been much extended and improved. A more full interchange of traffic now takes place, and an agreement has been entered into by which running powers are to be interchanged between Buffalo and Detroit for a period of three years, and an ultimate union, on the basis of the respective net earnings of the two lines in the last year of that period is proposed for the future consideration of the two companies; the previous liabilities and capital accounts of the two companies would in such event be kept entirely separate. The agreement also contemplates (but upon condition of satisfactory arrangements being first made with the connecting railways in the United States) the laying down at an early date of a third rail inside the present 5 feet 6 inch track, so as to permit the cars of the American lines on the 4 feet 8½ inch gauge to pass from Sarnia to Buffalo. All transshipment between New York and Chicago or the Mississippi River would thus be avoided and a large accession of carrying power be obtained without any other outlay of capital. Under this agreement, when all its details are carried out, the wants of the public and of the connecting railways

east and west, which have been so frequently and earnestly urged, will be effectually supplied.

15. The board are happy to be able to report that cordial relations (which it is the study of the executive to extend) exist between the different railroad companies in the United States which connect with the Grand Trunk Railway, and that the general interchange of traffic is steadily improving.

For some time past, and notwithstanding every effort to the contrary on the part of the direction and executive in Canada, the arrangements with the Montreal Ocean Steam Ship Company, under which so much of the traffic of Canada and of the Western States of America to and from Europe is worked have been extremely unsatisfactory, and even now a very large sum is owing by the Steam Ship Company to the Grand Trunk Railway Company. Looking at the rapid progress of this traffic and its vast importance to the Grand Trunk and to the western railroads, who command so much of it, your board have sanctioned public proposals to make through rates for the conveyance of passengers and freight with responsible parties running steamers to and from Portland during the forthcoming winter.

16. In conclusion, the board trust that the result of the half-year's working, which reflects much credit on the company's able executive, will be gratifying to the share and bondholders.

A largely increased revenue has been earned at diminished cost, and the net available balance of revenue is larger than it has been at any previous period.

A material reduction has been made in the locomotive department, especially in the cost of fuel, and the permanent way has been improved.

The judicious management of the company's affairs has, it is believed brought about a gratifying change in the public estimate of the efficiency of the undertaking.

From all parts of the province cheering accounts are received of this year's harvest, and the board look with confidence to the continuance of a steady increase in the revenue.

Much, however, of the financial success and efficiency or otherwise of the company still depends upon the action of the Canadian Government, but your board cannot believe that, after so many injurious delays, further injury will be inflicted upon the company and the province by withholding a fair remuneration for postal services regularly and efficiently performed, and thereby preventing the consolidation of the province and the expansion of the usefulness of this great undertaking.

17. Mr. W. Chapman having resigned his seat as a director of the company, the vacancy has been filled by the appointment of Mr. A. W. Young, whose election, in the event of a vacancy, was promised by the board at the last meeting.—On behalf of the board.

EDWARD W. WATKIN, President.

#### Atlantic and St. Lawrence Railway.

We are frequently asked for information regarding this fixed rental of the Grand Trunk Railway Company. We are unable to say exactly what the rent will be in the course of the ensuing ten years until the end of 1872, but we believe it will be about 4 per cent. per annum to the Atlantic and St. Lawrence shareholders in the ten years, not less than 4 per cent., perhaps a little more; and that after 1872, it reverts to the original 6 per cent.

"But are the Atlantic and St. Lawrence preserved in their present position after 1872—will they then claim their 6 per cent. before the 1st preference bond interest?"

Turning to the 20th section of the Arrangements' Act by which the rents of the company are classed as part of the working expenses, and therefore the 1st preference bonds, we see no limitation in the time during which they are so classed.

But it would be a very proper question to put to Mr. Watkin or Mr. Lloyd at the next meeting—namely whether the rents will during the whole

terms of their leases rank amongst the working expenses and before the first preference bonds, the first preference bonds before the second preference, the second preference before the third preference stock, and the third preference before the fourth preference? Whether the order of precedence established by the Arrangements' Act, 1862, is maintained after 1872, as it is until 1872? The rates of interest of the various stocks alter after 1872; the concessions of the various bondholders and stockholders were only for the 10 years; but we are under the impression that the order of the rents, interest, preference dividends, &c., is permanently arranged and settled by the Arrangements' Act of last year.—*Herolph.*

#### Hannibal and St. Joseph Railroad.

The finances of the Hannibal and St. Joseph road of Missouri, have recently been reorganized, and the new securities admitted to dealings at the Stock Exchange. The following report of the standing committee of the stock board will best explain the present position of the share capital and bonded debt of the concern:

COMMITTEE ON SECURITIES, NEW YORK STOCK EXCHANGE, Sept. 25, 1863.

In the matter of calling the securities of the Hannibal and St. Joseph Railroad Company, it appears from the official documents submitted to the committee:

1. That more than three-fourths of the original bonds of the company have been surrendered for exchange into the new securities, and a considerable portion of the remainder assented.

2. That all rights of priority and security under the original mortgages are preserved by the special trust created for that purpose.

3. The position of the company when the reorganization is completed, will be as follows:

Debt to Missouri, for State bonds at 6 per cent. being the first lien on the road, not on the lands .....	\$3,000,000
Land bonds, 7s coupons, 1st April and 1st October, secured by first mortgage, on about 600,000 acres of land, also included with the convertible bonds, in a general mortgage on the road .....	3,408,300
Convertible bonds, 7 per cent., coupons 1st January and 1st July, secured by second mortgage on the lands, and included with the land bonds, in a general mortgage on the road ..	822,000
Preferred stock, not cumulative, 7s, \$100 shares .....	5,809,528
Common stock, shares \$100 each .....	2,000,000

Total .....

\$14,539,828  
The committee recommend that the old securities be dropped, and the new securities be called upon the regular list.

#### Minehill and Schuylkill Haven Railroad.

We hear it stated that the lease and possession of the Minehill Railroad Company by the Reading Company will be consummated to-morrow. The shareholders of the Minehill, it is understood, are guaranteed eight per cent. per annum on their stock. If this is true, the shares of the Minehill may be set down as among the most reliable of the investment securities; and the guarantee should make them worth, in these times, the par of 8 per cent., namely, \$66⅔. They are now selling at about 62. The arrangement is certainly a good one for the Minehill Company, but is of much greater value to the Reading. That company now virtually commands the immense coal tonnage of Schuylkill County, which in value amounts to millions of dollars, and with the great advantage of the grade of its road to market, can compete with any rival region for the market of the country, fully protecting the producers of Schuylkill County, while it earns most satisfactory dividends to shareowners. There is no company that opens to its owners a more promising future than the Reading.—*Philad. Ledger, Oct. 5.*

**Construction of Chelsea Suspension Bridge.**

(Concluded from page 929.)

**The Chains and Saddles.**—The chains of the Chelsea bridge are four in number, two being placed on either side, at a distance apart of 32 feet. They consist of links of seven and eight bars alternately, 8 inches wide, and of lengths varying from 16.55 feet at the towers to 16 feet at the centre of the span, so as to admit of a uniform horizontal distance of 16 feet from centre to centre of the pin-holes of each link, and are connected by pins 4 inches in diameter. The aggregate section of the four chains at the towers is 280 square inches, and at the centre 217½ square inches. The span of the centre opening is 348 feet, and the deflection of the chain is 29 feet. The semi-span of the back chains is 183 feet, and the deflection 30 feet 6 inches. The length of the chain for the centre opening is 354 feet 5 inches, and the length of each of the back chains 186 feet. The mooring chains are placed at an angle of 25°, and are 95 feet long, and have an aggregate section of 285 square inches. The total weight of the chains is 340 tons. The chains are carried over the towers by means of saddles formed of No. 8, 1 inch wrought iron rectangular plates, 5 feet 8 inches long, and 2 feet 10 inches wide, placed at intervals of 1 inch apart, and bolted together by No. 10 bolts. The bottom edges of the plates are planed, and are let into cast iron plate 4 inches thick, also planed on its top and bottom surface, and which moves on ten 6 inch diameter steeled rollers, working on the cast iron bed-plate fixed at the top of the towers. The chains are connected to the saddles in the same way as the links of the chains are connected together. At the abutments the chains are diverted down the tunnels by means of saddles of similar construction to those on the towers, based on cast iron cradles, and placed at right angles to the resultant of the strains.

For mooring the chains the following means were adopted:—As has been observed in the description of the abutments, the tunnels for the mooring chains are closed at the bottom by elliptical-shaped brick domes, against which the York landings are placed at right angles to the angle of inclination of the mooring-chains. The chains pass through holes formed in the centre of the landings (the dimensions in the landings were stated in the description of the abutments). A brick semi-circular arch or invert springs from the outer face of the landings, and connects the two sets of landings of each abutment together, by which means the whole weight of the middle portion of the abutment, it will be seen, is made to resist the pull of the chains. The chains are secured by means of castings, 21 inches deep, abutting against the landings, and are divided each into four compartments, rather more than 2 inches wide, through which the chain-bars (here put two and two together) pass, and are moored by keys driven through the heads of the bars, and bearing against the mooring castings. Keys were here used instead of pins, to allow of an adjustment in the length of the chains. Similar means for adjusting the lengths of the chains were made at the saddles on the towers, but were not needed.

In calculating the length for the chains the curve may be assumed to represent a parabola, though, strictly speaking, the curve of the chains is peculiar to the construction; but, deduction being made for the stretch due to the tension caused by the appended weight, the weight so deducted will be found practically correct. Care should be taken to ascertain the exact distance of the span, as a small error in the horizontal distance will cause a serious error in the amount of deflection. It is well to provide for any discrepancy of this kind by leaving the centre links of the chains the last to be rolled; when, the error being known, it can be rectified without any serious interference with the rest of the construction.

For the erection of the chains four temporary chains were thrown across, made of 2 inch round bar iron, and placed one on each side of the line of the chain to be erected. Upon these temporary chains traveling purchases worked, by which the

bridge chains were hoisted and put in place.—Four other and similar chains were thrown across beneath the former mentioned ones, to which timber platforms were suspended, and which served to carry the bars of the chains until the connexion of the links were complete. In the hope that the description may be acceptable, a few observations are subjoined respecting the manufacture of the bars.

The bars for the chains of the Chelsea Bridge were manufactured by the process patented by Messrs. Howard and Ravenhill, by which the head and body of the bars are rolled of one piece, and was effected as follows:—Piles, or, as they are technically called, balls of cleanse scrap iron, of about ¾ cwt. each, were heated (eighteen balls being the usual charge) in a reverberatory furnace of ordinary construction, and afterwards hammered into slabs about 2 inches thick by a 4 ton wrought iron hammer. The slabs while still hot, were then piled in sets of the weight required for the respective bars, and again heated and hammered into oblong masses of iron called shingle, somewhat wider than the width for the bars, and about 2 feet 9 inches long. The time required for heating the balls of scrap was one hour and a quarter; that is, so much time elapsed from the time of charging the furnace to the withdrawal of the first ball; and the time required for hammering the eighteen balls into slabs was three-quarters of an hour. It may therefore be observed, that the last ball withdrawn was nearly twice as long in the furnace as the first ball was; and it may, consequently, be supposed that some of the balls of scrap were too much and others too little heated; but the precautions adopted in the management of the furnace prevent any great irregularity in this respect. The balls first withdrawn were placed nearest the furnace; and, as withdrawn the remaining balls were pushed nearer the furnace, or otherwise, as their state required. The time for hammering a pile of slabs into shingle was about five minutes. By the two heats of hammerings the loss of iron was about 13 per cent.; and after the shingle was rolled into bars the total loss of iron was 20 per cent.; that is the bar weighed one fifth less than the scrap iron weighed from which it was manufactured. For converting the shingle into bars of the required form the shingle was heated to the required temperature in the furnace of the rolling-mills, and was then passed longitudinally through rollers till reduced to a width of 8 inches, and to a thickness of 2¾ inches. It was then transferred to other rollers, and passed through sideways; these rollers being so constructed as to act only on the extremities of the bar, which, by this means, are spread out to the width required for the heads. The bar was then passed again longitudinally through ordinary rollers, till reduced to the length and thickness required; after which, while still hot, it was straightened by being beaten with wooden mallets. The time required for rolling a shingle into a bar was eight minutes.

The next process was boring the pin-holes. In doing this the bars composing each link were placed one on another, and bored by one operation, by which means uniformity of length was obtained. Shearing the heads of the bars to the proper form was the next operation. To do this the bars were fixed eccentrically on a table revolving in contact with shears, which, as the table turned, cut off the superfluous portions of the heads.

Every bar of the chains at this stage was tested with a strain of 13½ tons per square inch; the contract requiring, in order to insure material of the best quality, that the iron used should stand this strain without a permanent elongation of more than one fortieth of an inch in a ten feet length; it having been found from experiments made that up to this strain the best commercial iron did not extend more than the very best iron that could be manufactured. It may be observed, that notwithstanding this amount of strain very few of the bars had to be rejected.

The last process in the manufacture of the chains was numbering the bars and lettering the links, that there should be no mistake in erecting

the chains, as to every bar being in its proper place. A few words will suffice to explain how this was carried out. The chains were divided into eight portions, and named A, B, C, D, E, F, G, H, respectively. The chain A extended from the moorings on one side to the centre of the bridge, where it was joined by the chain B, which continued to moorings on the other side, and so of the other three remaining chains. The heads of every bar of every link were then stamped with the letter of the chain to which it belonged, and numbered; the heads of the first links at the moorings being numbered 0, and the heads of the other extremity of these links 1.—The heads of the second series of links were numbered 1 and 2; of the 3d series 2 and 3; and so on throughout the whole length of the chains. The bars of every link were also numbered 1, 2, 3, 4, 5, 6, 7, 8, showing the position they occupied in the link during the operation of boring.

The engineer considered it highly advantageous to the successful completion of this part of the bridge that the chains were prepared by Messrs. Howard, Ravenhill & Co., who spared no pains and no expense to carry out his instructions to produce a perfect structure; and so far from their making any attempt to evade any condition of the contract for their own advantage, the perfection of the work was their chief consideration.

It will show the excellence of the iron they produced to state that, whereas the late Mr. Barlow deduced that the stretch of iron was at the rate of one ten-thousandth part of its length for each ton, the iron which Messrs. Howard, Ravenhill & Co. produced for the bridge only stretched from one fifteen-thousandth to one fourteen-thousandth part of the length per ton, being above fifty per cent. less than Mr. Barlow's.

As so much depends upon an honorable contractor in the execution of a work, Mr. Page authorized me to make these observations in justice to Messrs. Howard, Ravenhill & Co.

**Of the Probable Load.**—Before considering the strain to which the chains are liable, it would be well to investigate the amount of load to which a bridge may be subjected.

M. Navier, a great authority on suspension bridges, calculated the load likely to occur on a bridge at 42 lbs. per square foot. The standard proof for suspension bridges in France is 200 kilogrammes per square metre, which amounts to 41 pounds per square foot, the proof load required by the French Government.

For troops on march, 21 inches in rank and 30 inches in pace are allowed, giving 4.37 superficial feet per man; which, at 11 stone each, would be 35¼ lbs. per square foot.

The load taken in the calculations for the Menai Bridge was 43 lbs. per square foot super.

An experiment was made by the engineers of the Chelsea Bridge, by packing picked men on a weigh bridge, with a result of 84 lbs. per superficial foot; but it is not within the limits of probability that such a crowd could accumulate on any bridge.

Seventy pounds per square foot of platform are assumed as a standard for the load that may come on a bridge; as being the utmost load that the platform could hold; supposing it, in fact, quite filled with people crowded as close together as they could be. This, it is true, is not often likely to happen; but it may do so on a public occasion; and needs, therefore, to be provided for.

The march of cavalry, or the passage of cattle, is not so productive of dangerous effects as troops on the march, inasmuch as cavalry take up more room in proportion to their weight and do not preserve a uniform pace.

As regards the greatest moving load or crowd, it is an acknowledged fact that it is impossible for a body of people on the move to occupy per man less space than trained troops; and as I have before shown that troops on the march do not produce a greater dead weight than 35¼ lbs. one may safely assume that the dead weight due to a moving crowd will not amount to so much.

**Of the Strain on the Chains.**—Having described the various loads that may come upon a bridge; it



may be useful to show the strain produced on the chains of the Chelsea bridge under the several circumstances.

The strain on the chains from their weight alone is 1 1-10 ton. The strain from the weight of the platform and road alone is 3.32 tons, giving a total strain produced by the structure alone of 4.42 tons, or 9.08 tons below the proof strain.

The strain on the chains from the weight of the structure and a load of 70 lbs. (being the weight per square foot of a dense crowd) is 7.60 tons—or 5.9, nearly 6 tons, below the proof strain; so that the chains will carry in addition the weight of the structure nearly three times the greatest crowd that can come upon the bridge, before the proof strain is arrived at. Taking the breaking strain of the chains at 28 tons, we should require seven and a half times the greatest possible load to be brought on the bridge to produce that strain.

Before concluding these observations on the Chelsea bridge it may be interesting, without taking into consideration the high quality of the iron, to compare the strain on the chains with other suspension bridges; and for this purpose I may refer to the Hammersmith and Pesth bridges as fine examples of bridge engineering; both being built by the same engineer, Mr. Tierney Clarke, at distant intervals; the Hammersmith bridge having been open 36 years, and the Pesth 14 years.

The Hammersmith bridge is 710 feet 8 inches between abutments, the span of the main opening is 442 feet 6 inches, the deflection is 29 feet 6 inches, the useful width of platform is 30 feet, the sectional area of the chains is 180 square inches, the weight of a square foot of road 63 lbs., and the strain per sectional inch upon the chains from a load of 70 lbs. is 8.86 tons: the chains were proved up to 9 tons, leaving a margin of 14 tons between the proof strain and the strain from the greatest load.

The Pesth bridge is 1262 feet between abutments, the central span is 666 feet; the deflection of the chains is 47 feet 6 inches, or 1-14th of the span; the available width of roadway is 36 feet 3 inches; the weight of a square foot of suspended roadway is 74 lbs., and the chains have a sectional area of 510 square inches.

The strain produced on the chains with a load of 70 lbs. per square foot is 7.72 tons, or 1.28 tons below the proof strain, all the bars having been proved up to 9 tons.

The margin or allowance between the strain from the greatest load and the proof strain is therefore as follows:

Hammersmith Bridge .....	14 tons.
Pesth Bridge .....	1.28 tons.
Chelsea Bridge .....	5.9 tons.

#### Our Canal and Railway System.

In no part of the world is there such a vast network of Railways as in the United States; never elsewhere was so much work accomplished in so short a time. This is not only in consequence of the natural enterprise of the people, but the spirit of emulation among them as inhabitants of rival and ambitious States. If ours had been a single consolidated Government, it is more than probable from the vastness of the area to be traversed, and the facility with which opposition from remote parts could have been brought to bear and concentrate upon any one project of the hour, no matter what its merit, there is little doubt that our present Railways would have occupied a hundred years or more for their construction. Our system has been and will be one of our elements of strength. The States have always had and will yet always have enough to do, to fulfill their original purpose, without claiming the exercise or rights of nationality, and sovereignty, to which some of our erring brethren have pretended, and by which they have befogged themselves and lost their way. There never was any such thing in

this country as a state sovereignty. The first Congress was an assembly of delegates from provinces under charter or proprietary governments, subject to the Crown, which for a long time after the revolution broke out, declared their desire and intention to return to their allegiance, when their very reasonable propositions were accepted. The first idea of the formation of States came from a resolution of Congress recommending it, and from that day to this, whether in the old confederation or under the new constitution they have been fully and entirely subject to one and the only sovereignty, that of the Nation in Congress assembled. Mr. Madison was of this opinion as will be found by reference to the debates on the adoption of the constitution.

In the sphere then which the States have occupied and should still occupy, their functions have been remarkably well exercised and in nothing more than in encouraging, establishing and maintaining the great channels of domestic intercourse, either within their own limits, or by connecting them with their neighbors. The best thing a State could do, or its Governor and Legislature could do, was, not to meddle eternally with abstract questions of National policy or our foreign relations, but to see that their own citizens were well and happily employed, educated, protected, advanced; that their industry was rewarded, their facility of intercourse and transit extended to its utmost possibility, and that Religion, Education, Industry and Commerce were their common blessings. The Canal system under this early view of the nature of our State Governments was the first object of development. No less than seventy seven canals great and small, exist in various parts of the United States, the work of long years of care and expenditure. About thirty five hundred miles of canals were accordingly furnished and put in successful operation. The longest lines constructed were as follows:

The Erie .....	350 miles.
The Ohio and Erie .....	307 "
The Wabash and Erie .....	379 "
The Genesee Valley .....	107 "
The Delaware and Hudson .....	108 "
The North Branch Pa. ....	105 "
The West Branch and Susquehanna Pa. ....	117 "
The Pennsylvania .....	156 "
The Erie, Pa. ....	136 "
The Chesapeake and Ohio .....	184 "
The James river and Kanawha .....	147 "
The Miami and Erie .....	178 "
The Illinois and Michigan .....	102 "

Upwards of forty other canals of various sizes under one hundred miles in length were built in connection with navigable rivers and natural water routes, North and South, thus creating the largest and most useful artificial water communications in the world, with the exception of those of China.

The discovery of the Steam Engine as applicable to the propulsion of vessels, led to driving locomotives on iron roads. This created the present railway system, and immensely enlarged the sphere and the power of human industry. In 1850 these railways in the United States extended in length 8,588 miles. In 1860 their aggregate length was 30,592 miles, and in 1862 our railways open and in progress of construction extended 51,114 miles. Every year since, the extension of the system has gone on. The new states and territories are continually increasing the demand for them, and the great Pacific railway is

already commenced with a vigor which ensures its construction at an early day.

In looking at a railway map, we discover some curious features. One of the first objects of the system was to reach the seaports whether on the Atlantic or the Gulf, then the great towns on the Northern lakes, then connections between great commercial centres, inland and on our navigable rivers. Natural routes, those of which Nature had been the Engineer, were sure to be selected, for the comparative ease of their grades. It has been suggested that in the Southern States, there were accompanying considerations with regard to location in view of future military operations, even when Northern capital was employed in the construction. Another policy has prevailed to a remarkable degree, that of tapping great lines by transverse connections, and creating parallel lines when the traffic promised to be enormous. Looking at the map we see that the state of New York has its principal net work of railways West of Utica, having a Northern and Southern direction; while the East half of the State as determined by a line drawn from Ogdensburg to Port Deposit on the Delaware, shows a vast blank with but two principal lines running eastwardly and westwardly through this large space. The mountains of both regions simply making direct and long lines impracticable even if they were necessary. It is extremely to be regretted that the Lake Ontario and Hudson River Railway has never been constructed, for it would have opened up a timber and iron region as valuable as any of that class in the North. In the State of Virginia we perceive but two long lines, very circuitous, one connecting with the Ohio, and the other with the Gulf, several others of less extent and more direct, with ports on the Atlantic, as Wilmington in North Carolina, which accounts for its being a favorite and convenient place of resort for the blockade runners. In Kentucky from two points, Lexington and Danville, the chief railways diverge North and South, from the line between those two places like the sticks of two fans with a connecting handle, Indiana, Illinois and Ohio, are crossed in all directions by railways at large angles. Those in Missouri few in number, struggle off Northwardly, Westwardly and Southerly, apparently without termini, receiving at two points on its river of the same name, all that it requires from the East, at St. Louis and Cairo. But we have not time to complete this birdseye view of our railway system. We may refer to it again, as it shows us the tendency of our internal trade and traffic, the march of population, and the direction in which the star of Empire takes its way.

#### Philadelphia Passenger Railways.

Our city railroads are being extended with great rapidity, and no great length of time will elapse before every point of our city and suburbs will be in easy reach of the business centre through the agency of these roads. There is now in contemplation a railway from Frankford to Holmesburg, a distance of four miles, and thence to Bustleton, two and a half miles, or six and a half miles in all, passing through a beautiful portion of our city suburbs, and accommodating a large and increasing population. The books of subscription to the stock of this company will be opened on the first of October, at Holmesburg, and already assurances are given that the stock will be readily taken and the construction of the road prosecuted with energy.—*Philad. Inq.*

**A Northern Pacific Railroad and Telegraph.**

Our readers will remember a paragraph in our paper a few days since, stating that C. J. Brydges, Managing Director of the Grand Trunk Railway, and several other gentlemen prominent in Canadian commercial enterprises and Canadian politics, were at St. Paul perfecting arrangements to build a telegraph line from that city to Fort Garry, and thence up the valley of the Saskatchewan across the Rocky Mountains to the Pacific. Some of the gentlemen referred to have returned, and from them we learn that the early completion of the line is placed beyond any probable contingency. Indeed, matters have so far progressed that it is expected that it will be all finished during the next summer. Our readers are already informed that the Russian Government are building a line across Asia, down the valley of the Amoor, and thence it is to run to Behring's Straits, where it will meet the line or lines across the American continent, thus connecting the new and old world in bonds which it is to be hoped will never again be severed. The building of this new line will be a source of much benefit to our own country as well as to Canada. The California company will no longer have a monopoly of the news between the Western and the Eastern coasts of the continent, and besides the Northern route is something like a thousand miles the shorter, costing less and therefore able to make better terms for the transmission of dispatches.—Another fact connected with this subject indicates a new and most important movement in the development of the American continent. It is the intention of the company to promote and establish a cordon of settlements at short distances entirely across the continent. Our readers will remember that, with the exception of the one surveyed by Stevens for the Pacific railway, the Northern route, from the capacities of its soil and climate is the only one that can sustain a prosperous population from the Atlantic to the Pacific. Recent discoveries have proved beyond a question that large gold deposits exist upon the headwaters of the Saskatchewan, and a railway is already projected west from Fort Garry. Perhaps in one and probably in two decades at most we shall have a direct line of railway over this northern route across the continent. The readers of these columns know that north and west of Lake Superior, lies what has been appropriately called "the undeveloped portion of the North American Continent"—a country vast in extent, and whose agricultural, mineral and commercial resources fit it to contain an immense population, with all that can promote and sustain the highest type of our Christian civilization. Not many generations can pass before it will become a vast and powerful empire in itself.

The civilized world has long known that the policy of the old Hudson Bay Company was borrowed from Japan. They always did all they possibly could to discourage settlement, and a knowledge of the climate and the resources of the country they governed was carefully concealed from the public eye. Recently the franchises of the old organization have passed into the hands of a wiser and more energetic company, who have adopted a policy in accordance with the more just and liberal views of the age. They will promote the settlement of the country by all the means in their power, and the line of telegraph now projected is the first fruit of their enlightened management.

In this connection it gives us pleasure to add that arrangements have been perfected to push forward the Pacific Railroad of Minnesota to meet the wants of this new development. It will probably reach the British American line in the vicinity of Pembina, and thence be pushed forward to the valley of the Saskatchewan much sooner than our most sanguine readers would dare to predict. It is understood that the President of Company, Mr. Edmund Rice, has made arrangements with English capitalists to furnish funds for the work as fast as they shall be wanted to carry it forward with all reasonable dispatch. And right here the deep interest which our city and the Northwest have in these movements can be

readily seen and appreciated. The outlet for all the vast fertile country of which we have spoken, and of this projected railway to the Pacific, must, from the nature of things, be around the south end of Lake Michigan. The country north of Lake Superior, for many hundreds of miles, is too mountainous, cold and inhospitable to allow of a connection between the Grand Trunk Railway of Canada and the great northern road to the Pacific. Right here in Chicago is where these great continental lines will find their most southerly trade, and here is the great central city of transfer and exchange for both seaboard of the continent. Of their effect upon the prosperity and the destiny of our city, it were useless here to speculate.—*Chicago Tribune.*

**Illinois Central Railroad.**

This road is now attracting more attention from our capitalists than any other in the West. It is a new thing for our people to buy railroad stocks of any kind, as heretofore there have been other channels where capital could be used more advantageously and profitably than in dividend-paying railroad stocks.

We learn, on good authority, that parties here have purchased over twenty thousand shares of the stock within the past month, and as they have a thorough knowledge of its value, we have no doubt but that it will prove a profitable operation to them. But in order to give the outside public some idea of the real value of this road, we have gathered up the following facts in regard to it:—

Whole bonded debt of the road .....	\$14,500,000
Capital Stock .....	17,500,000

Total .....	\$32,000,000
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The assets are as follows:

Bonds and mortgages secured on land .....	\$11,000,000
1,200,000 acres of land, at \$15 .....	18,000,000
Cash in bank .....	2,000,000

Total .....	\$31,000,000
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This shows enough, within a million dollars, to pay off the bonded debt, and to pay back to the stockholders the par value of their stock.

In addition to this, the company has the largest amount of rolling stock of any road in the West. It is at present composed of over 3000 first-class freight cars, 100 passengers and mail cars, and 150 locomotives, all finished in first-class style and with the latest modern improvements.

The estimate of \$15 per acre for their unsold lands is low, as some of the best farming lands of the State are yet held by them. The sales of lands are now made in small parcels, to be cultivated and improved. Of the last 2000 sales made by the Company, the average quantity of each sale has been only sixty-seven acres. The eleven million of land notes, secured by mortgages on lands heretofore sold by the Company are good beyond a doubt. The principal of these notes has already been reduced by payments over 25 per cent., which leaves the balance undoubtedly secure. The interest the present year will amount to more than all the principal paid on them in 1861, and the fact that the lands mortgaged are, from the improvements made on them, worth, in most cases, three times the amount of the incumbrances, will insure the certain payment at maturity of all the mortgages.

The Road this year, with its great feeder, the Mississippi river, closed, will earn the enormous sum of \$4,500,000. Deduct 50 per cent. for operating expenses, which is more than the average for the past two years, and it will leave \$2,250,000, net earnings, which will pay over 7 per cent. on \$30,000,000 of capital stock. This, too, with the country only one-third settled along the line of the road. If our State goes on filling up the next five years as it has the past five, it will be safe to calculate upon an increased traffic to the road of at least 25 per cent. per annum. The road does not owe one dollar of floating debt, is in perfect order along its whole length, and has replaced nearly all its old wooden bridges with iron ones, which will stand a century. At an early day, the

company secured a large tract of land for depot purposes, which is now in the business portion of the city, and very valuable. Should they find it to the advantage of the road at any time hereafter to remove their depots from their present situations, the lands on which they stand would quickly sell for upward of \$3,000,000.—*Chicago Tribune, Sept. 28.*

**Flax Commission.**

Under the appropriation of \$20,000, by the last Congress, to test the qualities of flax, and the best modes of preparing it for manufacture, Hon. J. H. Morehead, of Pittsburg, Dr. J. D. Warder, of Cincinnati, and W. M. Bailey, of Providence, R. I., have been appointed the Commissioners. They may be addressed at Agricultural Bureau, Washington.

**Presentation.**

Mr. R. S. Allen, having retired from the situation of Superintendent of the locomotive department in the New Brunswick and Canada Railroad Company, has been presented with a gold watch and appendages, by his subordinate officials, in token of their esteem for his valuable services and kind department.

**Railroad Earnings--Weekly.**

The traffic of the Great Western Railroad for the week ending Sept. 25, 1863, was as follows:

Passengers .....	\$27,321 06
Freight and live stock .....	32,093 54
Mails and sundries .....	1,314 16

Total .....	\$60,728 76
Corresponding week of 1862 .....	65,334 91

Increase .....	\$4,606 15
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The earnings of the Grand Trunk Railway for the week ending September 19, 1863, were:

Passengers .....	\$42,121 43
Freight and live stock .....	49,752 64
Mails and sundries .....	2,800 00

Total .....	\$94,674 07
Corresponding week, 1862 .....	73,632 66

Increase .....	\$21,041 41
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The approximate earnings of the Marietta and Cincinnati Railroad, in the 4th week of September, 1863, were .....

Do., 1862 .....	\$29,252 00
Do., 1862 .....	17,160 00

Increase .....	\$12,092 00
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The earnings of the Chicago and Rock Island Railroad for the 4th week of September, 1863, were .....

Do., 1862 .....	\$50,596 00
Do., 1862 .....	35,296 00

Increase .....	\$15,300 00
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The earnings of the Chicago and Alton Railroad for the 4th week of September, 1863, were:

Passengers .....	\$16,356 58
Freight .....	23,983 92
Sundries .....	1,059 23

Total .....	\$41,399 73
Same week last year .....	28,070 50

Increase .....	\$13,329 23
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Joliet road proportion is included for both years.

The earnings of the Galena and Chicago Union Railroad for the 4th week of Sept., 1863, were:

Freight .....	\$63,188 32
Passengers .....	13,981 38
Mails .....	1,300 00

Total .....	\$78,469 70
Same week, 1862 .....	62,165 46

Increase .....	\$16,304 24
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## RAILROAD EARNINGS—MONTHLY.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
<b>Buffalo, New York and Erie:</b>													
1861.....	36,633	37,426	49,194	58,881	56,174	45,993	46,417	43,516	51,212	73,432	79,409	78,783	657,070
1862.....	67,862	56,876	78,295	74,056	67,589	62,167	59,523	51,429	74,034	83,324	84,322	91,398	850,845
1863.....	100,183	81,130	100,376										
<b>Chicago, Burlington and Quincy:</b>													
1860.....	104,802	111,889	150,183	178,465	229,081	163,813	154,723	230,022	225,896	241,964	158,566	117,607	2,075,309
1861.....	149,068	115,525	158,007	131,814	169,100	149,186	169,465	188,478	224,225	226,009	210,494	179,625	2,070,996
1862.....	187,772	110,054	151,170	159,056	182,585	225,082	220,211	212,812	270,816	304,943	252,934	229,789	2,557,224
1863.....	242,729	204,537	260,269	306,697	329,000								
<b>Chicago and Alton:</b>													
1860.....	55,734	55,123	74,690	63,995	86,211	76,428	81,453	103,635	94,928	107,758	73,751	64,937	988,641
1861.....	81,531	75,621	78,361	65,358	75,260	63,761	73,474	136,897	141,174	122,487	104,254	80,296	1,098,404
1862.....	73,169	93,591	110,935	72,196	81,994	90,625	95,094	128,191	132,639	119,409	115,201	111,955	1,225,001
1863.....	96,306	107,443	106,816	127,205	140,107	154,617	162,226	167,966					
<b>Chicago and Rock Island</b>													
1859.....	60,058	55,497	68,116	71,792	73,578	72,392	67,076	87,233	120,053	126,090	100,440	82,252	984,577
1860.....	72,834	66,703	77,408	89,170	104,272	100,403	82,895	139,049	134,500	145,839	92,873	75,457	1,181,003
1861.....	83,030	63,976	77,007	76,609	102,163	90,621	85,410	130,542	164,084	152,537	123,319	118,758	1,261,050
1862.....	120,776	90,607	76,676	76,459	102,353	138,373	119,947	117,086	146,265	161,503	138,796	135,595	1,423,438
1863.....	140,024	120,225	122,512	127,507	144,995	171,766	139,363	151,865	209,391				
<b>Chicago and Northwestern:</b>													
1859.....	18,569	19,535	22,970	25,881	28,291	28,066	24,326	28,536	51,340	55,831	55,003	42,101	400,459
1860.....	32,192	33,408	46,246	48,919	62,392	45,985	39,500	49,571	80,819	108,737	74,331	53,554	675,754
1861.....	48,325	48,651	59,920	60,410	84,891	83,229	76,897	60,627	87,167	105,146	81,296	55,199	855,658
1862.....	46,005	49,103	59,249	54,725	84,706	104,815	95,340	71,306	104,094	124,787	108,956	90,991	994,677
1863.....	69,691	81,100	92,483	100,904	107,866	124,283	115,861	106,491	172,072				
<b>Cleveland, Columbus and Cincinnati:</b>													
1859.....	73,072	72,739	91,520	80,025	82,835	83,397	76,759	92,652	97,614	92,073	90,568	84,926	1,018,900
1860.....	69,287	70,724	83,965	79,701	85,990	84,950	94,820	118,539	119,487	107,672	86,879	71,402	1,073,422
1861.....	73,913	67,610	83,392	95,081	96,455	89,028	82,690	106,535	120,793	135,050	140,561	164,916	1,261,000
1862.....	135,850	110,836	103,352	115,115	113,854	123,465	131,423	173,152	192,174	172,381	165,178	180,063	1,716,843
1863.....	166,687	152,435	155,000	155,000									
<b>Cleveland and Toledo:</b>													
1859.....	59,856	56,779	75,709	62,294	55,652	52,788	44,781	61,791	72,389	79,673	76,304	82,220	780,236
1860.....	75,170	67,210	86,260	75,032	65,907	55,085	50,386	66,573	84,603	94,406	82,467	82,400	889,499
1861.....	85,239	74,818	85,663	90,324	65,302	63,137	62,269	60,285	84,640	98,528	88,401	105,253	955,959
1862.....	106,263	88,468	103,175	87,915	69,716	64,910	71,716	78,538	102,176	112,507	117,284	164,876	1,167,544
1863.....	145,916	146,839	165,780	121,278	100,225	100,085	91,308	102,130					
<b>Erie:</b>													
1858.....	376,357	328,047	461,495	557,995	473,368	384,379	383,322	389,373	275,250	456,226	436,899	392,203	5,014,992
1859.....	304,708	319,593	372,296	380,343	349,953	330,657	361,819	359,114	455,235	465,959	536,608	414,764	4,651,049
1860.....	354,000	345,000	433,311	457,161	393,400	393,409	319,955	477,642	600,124	687,242	601,448	412,723	5,355,424
1861.....	404,507	391,932	458,560	547,174	506,610	430,063	372,705	419,010	515,948	719,354	734,108	714,211	6,214,182
1862.....	699,097	601,595	638,006	626,070	587,416	528,842	505,024	615,962	750,421	885,136	902,106	963,859	8,400,834
1863.....	835,453	829,734	946,041	938,453	838,867	760,568	721,889	678,959					
<b>Galena and Chicago:</b>													
1859.....	62,421	66,943	92,921	88,708	110,556	88,527	119,280	208,803	195,934	123,907	89,344	1,369,441	
1860.....	60,653	62,698	80,793	93,254	115,505	93,449	80,705	166,541	219,528	252,108	142,658	84,860	1,462,752
1861.....	97,253	76,859	101,600	103,795	162,823	145,389	150,359	200,276	221,326	172,700	122,809	1,727,596	
1862.....	109,867	105,424	74,346	90,180	158,194	225,048	190,456	129,019	188,370	208,576	169,530	143,532	1,777,541
1863.....	132,617	121,161	129,226	136,601	172,343	212,946	143,517	160,716	231,566				
<b>Hudson River:</b>													
1859.....	192,161	190,589	175,773	121,123	141,269	115,444	125,306	155,164	156,973	170,157	157,443	232,013	1,933,434
1860.....	212,714	209,422	161,047	134,606	156,281	129,996	140,860	167,220	180,000	193,951	169,549	220,370	2,075,822
1861.....	223,157	205,343	167,560	139,751	150,808	122,683	114,804	135,209	146,424	173,261	197,762	246,283	2,023,537
1862.....	307,330	281,568	308,963	202,346	192,442	151,427	159,769	193,442	212,118	239,911	270,083	403,571	2,922,970
1863.....	458,953	425,047	368,802	270,676	241,771	202,392	190,364	219,561	238,100				
<b>Illinois Central:</b>													
1859.....	132,936	134,311	154,690	153,644	144,894	149,592	139,102	181,612	246,829	245,392	250,742	192,322	2,126,066
1860.....	185,257	195,926	209,994	183,758	219,899	188,090	193,931	248,971	259,643	321,059	243,163	225,196	2,664,848
1861.....	321,844	279,268	229,334	192,054	199,488	177,829	189,900	268,983	289,862	384,020	243,249	224,401	2,899,612
1862.....	190,130	238,637	181,084	191,648	206,246	269,282	261,079	352,786	414,543	410,336	372,593	359,463	3,445,827
1863.....	267,061	269,198	265,773	267,643	314,166	397,729	331,432	459,256	466,919				
<b>La Crosse and Milwaukee:</b>													
1860.....	32,884	36,670	44,269	50,532	69,624	50,780	35,426	62,570	89,847	147,192	95,816	50,866	756,476
1861.....	53,898	45,689	52,159	67,245	113,472	108,003	84,287	76,319	112,485	171,053	116,936	69,276	1,070,822
1862.....	61,055	54,786	43,912	48,766	125,999	111,766	91,459	68,073	137,187	164,809	122,863	63,771	1,095,046
1863.....	73,063	66,686	56,171	107,754	147,499								
<b>Milwaukee and Prairie du Chien:</b>													
1860.....	37,520	32,301	39,501	45,511	59,082	48,797	37,429	60,229	139,761	163,615	90,900	44,895	799,841
1861.....	54,246	44,027	43,637	49,102	112,266	141,771	107,117	90,463	134,726	177,879	130,184	67,990	1,153,407
1862.....	83,903	62,907	47,010	61,759	130,218	144,915	108,721	76,163	109,661	154,369	122,272	61,835	1,163,734
1863.....	76,132	44,925	44,925	85,177	106,967	111,200	71,587						
<b>Michigan Southern &amp; Northern Indiana:</b>													
1859.....	104,345	106,828	143,626	145,258	138,084	122,796	101,710	151,170	173,870	218,465	196,495	152,172	1,754,819
1860.....	131,467	119,833	166,454	170,842	175,481	134,688	127,273	196,821	233,851	273,722	203,492	134,972	2,068,896
1861.....	140,925	116,934	153,170	166,951	170,362	161,391	126,558	178,773	235,690	276,181	231,265	189,077	2,189,077
1862.....	153,728	157,500	167,500	193,120	200,826	181,983	189,115	226,819	276,109	325,018	304,084	279,539	2,647,833
1863.....	248,784	230,508	254,208	267,693	263,981	237,982	188,411	235,512	300,822				
<b>Michigan Central:</b>													
1859.....	101,386	102,959	151,864	143,143	127,145	119,770	108,303	150,366	210,837	226,077	181,617	132,949	1,756,416
1860.....	110,712	107,749	160,311	165,741	158,510	123,085	128,393	193,540	251,422	300,474	196,182	129,022	2,025,142
1861.....	142,334	119,764	151,871	172,614	149,550	133,620	123,377	144,982	236,846	307,333	242,089	200,134	2,124,314
1862.....	230,159	169,653	151,902	175,696	186,039	174,001	172,189	216,624	295,953	322,369	307,475	258,633	2,650,701
1863.....	242,073	245,857	226,432	2									

## AMERICAN RAILROAD BOND LIST.

(\*) signifies that the road is in the hands of receivers. (†) that the company is in default in its interest. "S. F.," Sinking Fund. "var." that the bonds fall due at different periods.

Description.	Amount.	Interest.	Interest.		Due.	Price.	Description.	Amount.	Interest.	Interest.		Due.	Price.
			When payable.	Where payable.						When payable.	Where payable.		
Alabama and Florida:							Chicago and Rock Island:						
Mortgage	\$300,000	7			1867		1st Mortgage	1,397,000	7	Jan. & July.	New York.	1870	108
Convert. (guar. by Dir.)	150,000	7			1863		Chicago and Northwestern:						
Alabama and Tenn. Rivers:							Preferred Sinking Fund	1,250,000	7	Feb. & Aug.	New York.	1885	105 1/2
1st Mortgage convertible	833,000	7	Jan. & July.	New York.	1872		General 1st Mortgage	3,600,000	7	" "	" "	1885	92 1/2
2d Mortgage	225,705	8			1864		Bonds issued for coupons of do.	756,000	7	May & Nov.	" "	1883	98
Albany, Vt. and Canada:							2d Mortgage	2,000,000	6	" "	" "	1890	72
1st Mortgage	600,000	7	March & Sept.	New York.	1857		Appleton Extension Bonds	184,000	7	Feb. & Aug.	" "	1885	99 1/2
Albany and West Stockbridge:							Green Bay Extension Bonds	300,000	7	" "	" "	1885	95
Albany City (S. F.)	1,000,000	6	Jan. & July.	Boston.	'66-'76		Flagg Trust Bonds	245,000	8	Jan. & July.	" "		
Androscooggin and Kennebec:							Cincinnati, Hamilton and Dayton:						
Million Dollar Loan	192,100	6	June & Dec.	Portland	'61-'64	70	1st Mortgage	384,000	7	Jan. & July.	New York.	1887	110
\$1,100,000 Loan	804,600	6	" "	or	1890	79	2d Mortgage	950,000	7	May & Nov.	" "	1880	110
Stock, convert. (Coupon)	710,000	6	" "	Waterv.	'63-'66		Cincinnati, Wilm. and Zanesville:						
Atlantic and Great Western:							1st Mortgage	1,300,000	7	Jan. & July.	New York.	1869	
Penn. Division, 1st Mortgage	2,600,000	7	Oct. & April.	New York.	1877	77	2d Mortgage	574,000	7	Feb. & Aug.			
Ohio " 1st Mortgage	4,000,000	7	" "	" "	1875	77	3d Mortgage	158,000	7				
N. York " 1st Mortgage	1,000,000	7	" "	" "	1879	80	Income	250,500	7				
Atlantic and St. Lawrence:							Tunnel Right	1,000,000	7				
Dollar Bonds (Coupon)	988,000	6	April & Oct.	Portland.	1866	92	Cleveland and Mahoning:						
Sterling Bonds (Coupon)	484,000	6	Nov. & May.	London.	1878	97	1st Mortgage	850,000	7	Feb. & Aug.	New York.	1873	105
City of Portland Loan (Coup.)	1,000,000	6	Various	N.Y., P. & Bos.	'68-'70		2d Mortgage	244,200	7	March & Sept.		1864	100
Baltimore and Ohio:							3d Mortgage	658,200	8	" "		1876	
Maryland Sterling Bds of 1833.	3,000,000	5	Ja. Ap. Ju. Oc.	London.	1838		Clev., Painesville and Ashtabula:						
Mortgage Coupon	2,500,000	6	April & Oct.	Baltimore.	1885	102	1st Mortgage	228,000	7	Feb. & Aug.	New York.	1862	92 1/2
" " " 1853.	700,000	6	Jan. & July.	" "	1880	102 1/2	Special (Sunbury and Erie)	500,000	7	" "	" "	1878	121
" " " 1855.	1,128,500	6	Jan. & July.	" "	1875	102	Dividend Mortgage	900,000	7			1880	
" " " 1855.	1,000,000	6	Ja. Ap. Ju. Oc.	" "	1867	102	Cleveland and Pittsburg:						
Balt. City Loan of 1855	6,000,000	6	Jan. & July.	" "	1890	101 1/2	1st Mortgage (Main Line)	800,000	7	Feb. & Aug.	New York.	1860	102 1/2
Bellefontaine and Indiana:							2d Mort. (M. L.) or 1st Extension	1,189,000	7	March & Sept.	" "	1873	100
1st Mortgage convertible	791,000	7	Jan. & July.	New York.	1866	101 1/2	3d Mort. (M. L.) or 2d Extension	1,166,000	7	" "	" "	1875	103 1/2
2d Mortgage	164,000	7	" "	" "	1870		4th Mort. (M. L.) or 3d Extension	1,059,028	6	" "	" "	1886	83
Belvidere Delaware:							River Line bonds	20,000	7			1887	
1st Mort. (guar. C. and A.)	1,000,000	6	June & Dec.	New York.	1867	100	Clev., Columbus and Cin.:						
2d Mortgage (do.)	500,000	6	March & Sept.	Princeton.	1885	95	1st Mortgage, Coupon	509,000	7	Jan. & July.	New York.	'64-'90	
3d Mortgage (do.)	589,500	6	Feb. & Aug.	" "	1874		Cleveland and Toledo:						
Boston Concord and Montreal:							Junction 1st Mortgage 1st Div.	284,000	7	April & Oct.	New York.	1867	101 1/2
1st Mortgage	200,000	6	Feb. & Aug.	Boston.	1865	100 1/2	Junction 1st Mortgage 2d Div.	164,000	7	June & Dec.	" "	1872	101 1/2
2d Mortgage	300,000	7	" "	New York.	1865	102 1/2	Tol., Nor. and Clev. 1st Mort.	439,000	7	Feb. & Aug.	" "	1863	75
2d Mortgage Coupons	100,000	6	Jan. & July.	Boston.	1870		Tol., Nor. and Clev. 2d Mort.	176,500	7	" "	" "	1863	75
Sinking Fund	200,000	6	" "	New York.	1870		C. and T. Income Mortgage	60,150	7	March & Sept.	" "	1863	75
Boston and Lowell:							C. and T. Income (convertible)	119,000	7	Jan. & July.	" "	1864	
Mortgage	440,000	6	Jan. & July.	Boston.	1873	107 1/2	C. and T. Income (convertible)	138,410	7	April & Oct.	New York.	1875	70
Buffalo, New York and Erie:							C. and T. Dividend (convert.)	25,000	7	March & Sept.	" "	1870	
1st Mortgage coupon	2,000,000	7	June & Dec.	New York.	1877	110	C. and T. (S. F.) Mortgage	2,677,000	7	Jan. & July.	" "	1885	112
2d Mortgage coupon	426,714	7	May & Nov.	" "	1872	103 1/2	Columbus and Xenia:						
Buffalo and State Line:							Dividend (due 1860, '61, '62, '66)	74,900		June & Dec.	New York.	var.	
1st Mortgage	500,000	7	April & Oct.	New York.	1866	108	Connecticut River:						
Income & in '99, & in '72)	200,000	7	Jan. & July.	" "	var.		Mortgage	250,000	6	March & Sept.	Boston.	1878	
Unsecured	200,000	7	" "	" "	1864		Connecticut and Passump. Rivers:						
Special Erie and North-East	149,000	7	" "	" "	'61-'70		1st Mortgage	800,000	6	June & Dec.	Boston.	1876	101
Burlington and Missouri:							Cumberland Valley:						
1st Mort. on 1st Division	590,000		Feb. & Aug.	New York.			1st Mortgage	161,000	8	April & Oct.	Philadelphia.	1904	
Cairo and Fulton (Mo.):							2d Mortgage	100,500	8	" "	" "	1904	
State (Mo.) Loan	650,000	6			'78-'70		Dayton and Michigan:						
Camden and Amboy:							1st Mortgage	300,000	8	Jan. & July	New York.	1867	
English debt (S. F.) £453,093	2,192,923	6	Semi-annual.	London.	1880		2d Mortgage	2,503,000	8	" "	" "	1881	100
Converted Sterling Loan	798,200	5	" "	" "	1863		Dayton and Western:						
American Loan	762,000	6	" "	New York.	1864	106	1st Mortgage	289,000	7	March & Sept.	New York.	1882	50
Extra Dividend Loan	334,468	6	" "	" "	1864		2d Mortgage	250,000	7	June & Dec.	" "		40
Loan for \$500,000	500,000	6	" "	" "	1867	103	Delaware:						
" " \$800,000	790,600	6	" "	" "	1870	104	1st Mortgage guar. by P. W. & B.	500,000	6	Jan. & July.	Philadelphia.	1875	102 1/2
" " \$875,000	675,000	6	" "	" "	1875	103	Guaranteed.	100,000	6	" "	" "	1875	105
" " \$1,700,000	1,700,000	6	" "	" "	1883	103 1/2	State Loan	170,000	6	" "	" "	1876	
" " \$2,500,000	867,000	6	" "	" "	1889	105	Delaware, Lackawanna and W'n						
Consolid. Mort. Loan \$5,000,000			" "	" "	1884	108 1/2	1st Mortgage (Lack. & Western)	900,000		April & Oct.	New York.	1871	115
Camden and Atlantic:							1st Mortgage (E. Extension)	1,499,000		" "	" "	1875	114
1st Mortgage Coupon	1,037,375	7	Feb. & Aug.	Philadelphia.	1872		2d Mortgage	2,516,500		March & Sept.	" "	1881	110
Ontario:							Detroit and Milwaukee:						
1st Mortgage	141,000	7	May & Nov.	Philadelphia.	1882		1st Mortgage (convertible)	2,500,000	7	Jan. & July.	New York.	1875	60
Cayuga and Susquehanna:							2d Mortgage	1,000,000	8	" "	" "	1866	
1st Mortgage	300,000	7	Jan. & July.	New York.	1865		3d Mortgage (convertible)	750,000	10	" "	" "	1863	
Central of Georgia:							4th Mortgage (G. W. R. R.)	500,000	8	" "	" "		
Mortgage	86,067	7			1863		Dubuque and Pacific:						
Central of New Jersey:							New Construction	800,000					
1st Mortgage	1,400,000	7	Feb. & Aug.	New York.	'65-'70	103	Dubuque Western:						
2d Mortgage	600,000	7	May & Nov.	" "	1875		1st Mortgage	344,000	†				
Central Ohio:							Eastern (Mass.):						
1st Mortgage W. Div.	450,000	7	May & Nov.	Zanesville.	1861	114	Income (due \$75,000 annually)	150,000	6	June & Dec.	Boston.	'63-'64	111
2d Mortgage E. Div.	800,000	7	Feb. & Aug.	" "	1864	94 1/2	2d Mortgage (convertible)	710,000	5	Jan. & July.	London.	'62-'72	98
3d Mortgage	800,000	7	June & Dec.	New York.	1865	107	3d Mortgage (convertible)	450,000	6	Feb. & Aug.	Boston.	1874	108 1/2
4th Mortgage (S. F.)	950,000	7	" "	" "	1885	60	1st M. (State) \$75,000 a yr after '64	500,000	5	Ja. Ap. Ju. Oc.	" "	var.	
1st Mortgage (S. F.)	1,366,800	7	" "	" "	1876	40	East Tennessee and Georgia:						
Charleston and Savannah:							State, 1st Mortgage	970,000					
1st Mortgage (endorsed)	510,000	6					Endorsed by State of Tennessee	150,000					
2d Mortgage	1,000,000	7					Mortgage (ordinary)	790,688					
Cheshire:							East Tennessee and Virginia:						
Bonds of '75, '77, '80	600,000	6	Jan. & July.	Boston.	var.	101 1/2	State, 1st Lien	1,602,000					
Chicago, Burlington & Quincy:							Endorsed by State of Tennessee	200,000					
Trust Mort. S. F., convertible	441,000	8	Jan. & July.	New York.	1883	122	1st Mortgage (after State)	100,000					
" " " " " " "	3,034,000	8	" "	" "	1883	122	Redeemable in Stock	66,960					
Plain Bonds, dated Sept. 20, 1860	755,000	7	March & Sept.	Frankfort O.M.	1890		Eaton and Hamilton:						
2d Mortgage, inconvertible	935,500	4 1/2	July.	" "	1890		1st Mortgage	757,784	†			var.	
Chicago and Aurora, 1st Mort.	135,000	7	Jan. & July.	New York.	1867		Erie and North-East:						
Central Military Tract, 1st Mort.	106,000	7	" "	" "	1867		Exchanged for Buff. and St. L.	149,000	7	Jan. & July.	New York.	'61-'70	
" " " 2d Mort.	83,000	8	May & Nov.	" "	1868		Florida:						
" " " Plain	25,000	8	March & Sept.	" "	1876		Internal Improvement (State)	1,655,000	7			1891	
Chicago and Alton:							Free Land, 2d Mortgage	1,600,000	8			1891	
1st Mortgage	2,400,000	7	Jan. & July.	New York.	1892	103	Florida and Alabama:						
1st Mortgage pref. S. F.	600,000	7	April & Oct.	" "	1877		Internal Improvement (State)		8			1891	
Income Bonds	1,100,000	7	May & Nov.	" "	1882	97	Free Land, 2d Mortgage					1891	
Chicago and Milwaukee:							Florida, Atlantic and Gulf Centr.						
1st Mortgage (convertible)	700,000	7	May & Nov.	New York.	1874	99 1/2	Internal Improvement (State)	300,000	7			1891	
Real Estate	188,804	7			1868		Free Land, 2d Mortgage	200,000	8			1891	



## AMERICAN RAILROAD BOND LIST.

(\*) signifies that the road is in the hands of receivers. (f) that the company is in default in its interest. S. F., Sinking Fund. "var," that the bonds fall due at different periods.

Description.	Amount.	Interest.	Interest.		Due.	Price.	Description.	Amount.	Interest.	Interest.		Due.	Price.
			When payable.	Where payable.						When payable.	Where payable.		
Galena and Chicago Union:							Memphis and Ohio:						
1st Mortgage Coupon	1,118,000	7	Feb. & Aug.	New York.	'62-'63	103	State (Tenn.) Loan	\$1,340,000	6				
1st Mortgage (Extended)	871,000	7	"	"	1882	114	Michigan Central:						
2d Mortgage (S. F.) Coupon	1,346,000	7	May & Nov.	"	1875	105	1st Mortgage Sterling	467,489	6	Jan. & July.	London.	1872	98 1/2
Great Western, Ill.:							1st Mortgage S'tg (convertible)	500,000	8	March & Sept.	"	1880	84
1st Mortgage Western Division	1,000,000	10	April & Oct.	New York.	1898	110	1st Mortgage (convert.) Dollar	2,598,000	8	"	N. Y. & Boston	1889	117
" Eastern	1,350,000	7	Feb. & Aug.	"	1885	102 1/2	1st Mortgage (S. F.), convertible	4,434,000	8	April & Oct.	"	1882	120
Hannibal and St. Joseph:							Mich. Southern and N. Indiana:						
Missouri State Loan (1st Lien)	3,000,000	6	Jan. & July.	New York.	'73-'87	85	Michigan Southern, 1st	14,000	7	May & Nov.	New York.	1880	100
Land Security	5,000,000	7	April & Oct.	"	1881	80	Northern Indiana, 1st	42,000	7	Feb. & Aug.	"	1881	107
Convertible Bonds	1,360,000	7	Jan. & July.	"	1883		Erie and Kalamazoo	103,000	7	March & Sept.	"	1882	
2d Mortgage	1,200,000	7	April & Oct.	"	1889	49	Michigan Southern, conv.	16,000	7	"	"	1883	85 1/2
Harrisburg and Lancaster:							Northern Indiana, conv.	20,000	7	Feb. & Aug.	"	1883	81
New Dollar Bonds	661,000	6	Jan. & July.	Philadelphia.	1883	112 1/2	Jackson Branch	81,000	7	"	"	1885	88
Harford and New Haven:							Goshen Air Line	701,000	7	"	"	1888	105
1st Mortgage	927,000	6	Feb. & Aug.	New York.	1883	99	Detroit and Toledo	812,000	7	"	"	1878	105
Houston and Texas Central:							1st General Mortgage (S. F.)	5,073,000	7	May & Nov.	"	1886	113
State (1st Lien) Loan	210,000	6	Jan. & July.	Bridgeport.	1877		2d General Mortgage	2,656,500	7	"	"	1877	100 1/2
Mortgage	125,000	7			1886		*Milwaukee and Beloit:						
Hudson River:							1st Mortgage	630,000	8				
1st Mortgage	4,000,000	7	Feb. & Aug.	New York.	'69-'70	112	Milwaukee and Chicago:						
2d Mortgage (S. F.)	2,000,000	7	June & Dec.	"	1885	116	1st Mortgage	400,000	8	Jan. & July.	New York.		103
3d Mortgage	1,840,000	7	May & Nov.	"	1875	123	2d Mortgage	200,000	8	"	"		
Convertible	1,002,000	7	"	"	1867	105	*Milwaukee and Horicon:						
Illinois Central:							1st Mortgage	420,000	8				10
Optional Right bonds	33,000	7	Jan. & July.	New York.	1888	118	2d Mortgage	600,000	8				
Construction	11,619,500	7	April & Oct.	London.	1875		Milwaukee and Prairie du Chien:						
Construction	3,104,000	6	"	New York.	1875	119	1st Mortgage (Coupon)	2,427,000	7	Jan. & July.	New York.	1891	106 1/2
Eight per cent. bonds	304,000	8	March & Sept.	"	1865		Minnesota and Pacific:						
Indiana Central:							Real Estate	1,200,000	7	Jan. & July.		1892	
1st Mortgage (convertible)	600,000	7	Jan. & July.	New York.	1886		1st Mortgage	350,000	7	"		1883	
2d Mortgage	364,000	10	"	"		110	Mississippi Central:						
Income	20,500						1st Mortgage	1,007,363	7				
Indianapolis and Cincinnati:							Mississippi Central and Tenn.:						
1st Mortgage	500,000	7	Jan. & July.	New York.	1886	110	State (Tenn.) Loan	529,000	6				
2d Mortgage	400,000	7	"	"	1882	100	Mississippi and Missouri:						
Real Estate Mortgage	200,000	7		"	1888	68	1st Mortgage (convertible)	1,000,000	7		New York.		
Ind., Pittsburg and Cleveland:							2d Mortgage (S. F.)	400,000	8		"		
1st Mortgage	650,000	7	Jan. & July.	New York.	1870		Oskaloosa Division	500,000	7		"		
2d Mortgage	314,000	7	"	"			1st Land Grant	2,000,000	7		"		62 1/2
Indianapolis and Madison:							2d Land Grant	709,000			"		
Mortgage	685,000	7	May & Nov.	New York.	1881	83	Mississippi and Tennessee:						
Jeffersonville:							Tennessee State Loan	98,000	6			1885	
1st Mortgage	187,000	7	March & Sept.	New York.	1861	75	Mississippi State Loan	202,799	6				
2d Mortgage	392,000	7	April & Oct.	"	1873	70	1st Mortgage	171,000	7			1876	
*Kennebec and Portland:							Mobile and Ohio:						
1st Mortgage (City and Town)	800,000	6	April & Oct.	Boston.	1870		City (Mobile) Tax Loan	400,000	6				
2d Mortgage	230,000	61	"	Augusta.	1861		Tennessee State Loan	674,860	6				
2d Mortgage	250,000	61	"	"	1862		Alabama State Loan	389,410	6				
*Kentucky Centr. (Conv. and Lex.)							Income	1,508,070	8	Jan. & July.	New York.	'61-'67	
1st Mortgage	160,000	6					Sterling	878,035	6			1883	
1st Mortgage	280,000	7					Mississippi State Loan	200,970	6			1883	
2d Mortgage (convertible)	1,000,000	7					Montgomery and West Point:						
2d Mortgage	600,000	7					Alabama State Loan	122,622					
Guaranteed by Covington	200,000	6					Mortgage (due 1880, '83 and '85)	350,000	6			var.	
Cincinnati (exchanged)	100,000	6					Mortgage	450,000	8			1886	
Keokuk, Ft. D. Moines and Minn.:							Muskegon:						
City of Keokuk, 20 years	400,000	81					1st Mortgage	249,000	7				
City of Keokuk, (special tax)	150,000	101					Nashville and Chattanooga:						
Lee County, 20 years	150,000	8					Mortgage (State endorsed)	1,500,000					
Keokuk, Mt. Pleasant and Muscatine:							Chat. and Olev. Subse. (endors.)	231,000					
Lee County	150,000	8					*New Albany and Salem:						
City of Keokuk	200,000	8					Crawfordsville	175,000	7				
Henry and Louisa Company's	50,000	8					1st Mortgage	500,000	10				
Lehigh Valley:							1st Mortgage	2,235,000	6				
1st Mortgage	1,465,000	6	May & Nov.	Philadelphia.	1873	111	N. Hay, N. Lond. and Stonington:						
La Crosse and Milwaukee:							Mortgage	450,000	7	March & Sept.	New Haven.	1861	
1st Mortgage (Eastern Div.)	903,000	7	May & Nov.	Milwaukee.		89	2d Mortgage	200,000	6	Jan. & July.	"	1863	
2d Mortgage (Eastern Div.)	1,000,000	7					Extension	118,000	6	May & Nov.	"	1878	
1st Land Grant (Western Div.)	4,000,000	7	Jan. & July.	New York.		44 1/2	New Haven and Northampton:						
2d Land Grant (Western Div.)	353,500	7	"	"		44 1/2	1st Mortgage	500,000	7	Jan. & July.	New Haven.	1869	
3d Mortgage (whole road)	1,700,000	7					New Jersey:						
Farm Mortgage	1,087,700	7					Company's (various)	638,000		Semi-annually.	New York.	var.	102 1/2
Unsecured Bonds	1,785,000	7					New London Northern:						
Lexington and Frankfort:							1st Mortgage	51,000	7	Jan. & July.	New London.	1871	100
Mortgage, due 1864, '69 and '74	130,000	6		Lexington.	'64-'74		N. Orleans, Jackson and Gt. North.:						
Little Miami:							State (Miss.) Loan	255,000	5				
Mortgage (Coupon)	1,300,000	6	May & Nov.	New York.	1883	105	1st Mortgage Coupon	2,665,000	8	Jan. & July.	New York.	'83-'88	
Long Island:							N. Orleans, Opelousa and Gt. West.:						
2d Mortgage	500,000	6	Jan. & July.	New York.	1870	103 1/2	Louisiana State Loan	641,000	6				
Extension Bonds	175,000	7	May & Nov.	"	1890	103	New Orleans City Subscription	1,500,000	6				
Long Dock Co.:							1st Mortgage (S. F.)	586,000	8				1889
Mortgage Bonds	500,000	7	June & Dec.	New York.	1882		New York Central:						
Mortgages on Land	473,809	7	"	"			Premium (S. F.) Bonds	7,350,000	6	May & Nov.	New York.	1883	109
Louisville and Frankfort:							Funding (S. F.) Bonds	1,498,000	7	Feb. & Aug.	"	1876	116
Louisville Loan	100,000		Jan. & July.	New York.	1881		Stock Exchange (S. F.) Bonds	683,000	6	May & Nov.	"	1883	102 1/2
1st Mortgage	228,000		"	"	'63-'78		Real Estate (S. F.) Bonds	165,000	6	"	"	1883	106
Louisville and Nashville:							Real Estate Bonds	252,975	6	"	"	1883	102 1/2
State (Tenn.), 1st Lien	560,500	6	Jan. & July.	New York.	'88-'92		Bonds of June, 1864	3,000,000	7	June & Dec.	"	1864	103
1st Mortgage	2,000,000	7	Feb. & Aug.	"	1883		Convertible Bonds	990,000	7	Feb. & Aug.	"	1876	134
Lebanon Branch 1st Mortgage	400,000	7			var.		B. and N. F. R. R. (S. F.) Bonds	79,500	6	May & Nov.	"	1883	104 1/2
Memphis Branch 1st Mortgage	300,000	7			var.		New York and Erie:						
McMinnville and Manchester:							1st Mortgage	3,000,000	7	May & Nov.	New York.	1867	110 1/2
State (Tenn.)	372,000	6					2d Mortgage	4,000,000	7	March & Sept.	"	1879	112
Mortgage	24,000	7					3d Mortgage	6,000,000	7	"	"	1883	112 1/2
Marietta and Cincinnati:							4th Mortgage	5,100,000	7	April & Oct.	"	1880	108 1/2
Mortgage	10,000	6					5th Mortgage	1,791,500	7	June & Dec.	"	1888	109 1/2
Mortgage Bonds	289,410	7	Feb. & Aug.	New York.	1891	90	Buffalo Branch	200,000	7	Jan. & July.	"	1891	
Memphis and Charleston:							New York and Harlem:						
State Tenn., 1st Lien	1,100,000	6			1880		1st Mortgage	3,000,000	7	May & Nov.	New York.	1873	111 1/2
1st Mortgage	1,600,000	7					2d Mortgage	1,000,000	7	Feb. & Aug.	"	1864	101
Memphis, Clarksv. and Louisv.:							3d Mortgage	980,200	7	Jan. & July.	"	1867	102
State (Tenn.) Loan	910,000	6					New York and New Haven:						
							Plain Bonds, Coupon	912,000	7	June & Dec.	New York.	1866	107 1/2
							Mortgage Bonds, Coupon	1,083,000	6	April & Oct.	"	1875	

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Description	Amount	Interest	Interest.		Due	Price	Description	Amount	Interest	Interest.		Due	Price
			When payable.	Where payable.						When payable.	Where payable.		
N. York, Providence and Boston:							Racine and Mississippi:						
1st Mortgage	\$276,400	6	Feb. & Aug.	New York.	1883	---	1st Mortgage (Eastern Division)	\$680,000	8	---	New York.	1875	35
North Carolina:							1st Mortgage (West'n Division)	757,000	8	---	"	1875	35
State Loan	3,000,000	6	---	---	---	---	Raleigh and Gaston:						
North-Eastern (S. C.):							Coupon	100,000	---	---	---	1882	---
1st Mortgage	700,000	---	---	---	---	---	Richmond and Danville:						
2d Mortgage	224,500	---	---	---	---	---	State (Va.) Loan (34 years)	600,000	6	Feb. & Aug.	New York.	var.	---
Northern Central:							Guaranteed by State	200,000	7	April & Oct.	Richmond.	1875	---
Balt. and Susq. R. R. (Coupons)	150,000	6	Jan. Ap. Ju. Oc.	Baltimore.	1866	---	Mortgage (Coupon)	250,000	7	Feb. & Aug.	"	1859	---
Md. State Loan (irredeemable)	1,500,000	6	---	---	---	---	Richmond, Fred. and Potomac:						
York and Cumberland 1st Mort.	175,000	6	May & Nov.	"	1870	---	Sterling (\$267,000)	324,006	6	---	---	1860	---
York and Cumberland 2d Mort.	25,000	6	Jan. & July.	"	1871	---	Richmond and Petersburg:						
Y. and C. guar. by Balt. 3d Mort.	600,000	6	---	---	---	---	Coupon	159,000	---	---	---	1875	---
N. C. Contract, 2d Mort.	300,000	6	Jan. Ap. Ju. Oc.	"	1875	---	Rutland and Burlington:						
Construction, 3d Mort.	2,500,000	6	Jan. & July.	"	1885	102½	1st Mortgage	1,800,000	7	Feb. & Aug.	Boston.	1863	74
Northern (Ogdensburg):							2d Mortgage	937,500	7	"	"	1863	---
1st Mortgage	1,500,000	7	April & Oct.	New York.	1859	100	3d Mortgage	440,000	7	"	"	1863	4
2d Mortgage	3,077,000	7½	"	"	1861	25½	Sacramento Valley:						
North Missouri:							1st Mortgage	400,000	10	Jan. & July.	New York.	1875	---
State Loan (30 years)	4,350,000	6	Jan. & July.	New York.	'72-'87	90	2d Mortgage	329,000	10	Feb. & Aug.	San Francisco.	1881	---
North Pennsylvania:							Sandusky, Dayton and Cincinnati:						
Mortgage	2,500,000	6	April & Oct.	Philadelphia.	1875	96	1st Mortgage	997,000	7	---	---	1866	---
Chattel Mortgage	360,000	10	"	"	1887	120	2d Mortgage	1,000,000	7	---	---	1875	---
Northern (N. H.):							3d Mortgage	422,324	6	---	---	1878	---
Bonds due 1864 and 1874	220,700	6	April & Oct.	Boston.	'64-'74	105½	Six per cents	---	---	---	---	---	---
Norwich and Worcester:							Sand'sky, Mansfield and N'wark:						
Mass. State Loan	400,000	6	Jan. & July.	Boston.	1877	---	1st Mortgage	1,200,000	7	Jan. & July.	New York.	1866	30
Bonds for Dividend Serip.	100,000	7	"	New York.	'64-'74	---	Saratoga and Whitehall:						
Steamboat Bonds	200,000	7	Feb. & Aug.	"	'63-'70	---	1st Mortgage	250,000	7½	April & Oct.	New York.	1858	---
Ohio and Mississippi (O. and Ind.):							1st Mortgage (R. and W. Br.)	100,000	7½	March & Sept.	"	1866	---
1st Mortgage	2,050,000	7	Jan. & July.	New York.	1872	---	Seaboard and Roanoke:						
2d Mortgage	258,000	7	April & Oct.	"	1880	---	1st Mortgage	300,000	7	---	---	1880	---
Construction	4,242,000	7	March & Sept.	"	1876	17	2d Mortgage	75,000	7	---	---	1870	---
Income	3,320,000	7	May & Nov.	"	1881	---	Dividend Bonds	129,083	7	---	---	1873	---
Orange and Alexandria:							South Carolina:						
1st Mortgage	400,000	6	May & Nov.	New York.	1866	---	State Loan	187,000	5	---	---	1868	---
2d Mortgage or 1st Extension	1,200,000	6	Jan. & July.	"	1875	---	Sterling	183,333	6	---	---	1863	---
2d Extension	600,000	8	May & Nov.	"	1873	---	Sterling	2,000,000	5	---	London.	1866	---
Pacific (Mo.):							Southern Mississippi:						
State (Mo.) Loan	7,000,000	6	Jan. & July.	New York.	'71-'87	90	1st Mortgage	500,000	---	---	---	---	---
State Loan (S. W. Branch)	1,238,000	6	"	"	---	---	South-Western (Ga.):						
Construction	3,235,000	7	"	"	---	55	1st Mortgage	631,000	---	---	---	1875	---
Panama:							*Springfield, Mt. Vern. and Pittsb.:						
1st Mortgage Sterling	1,250,000	7	April & Oct.	London.	1865	100	1st Mortgage	500,000	---	---	---	---	---
2d Mortgage Sterling	1,150,000	7	Feb. & Aug.	"	1872	---	2d Mortgage	450,000	---	---	---	---	---
Pennsylvania:							*Steubenv. and Ind. (P. C. and C.):						
1st Mortgage	4,980,000	6	Jan. & July.	Philadelphia.	1880	111	1st Mortgage	1,500,000	7	Jan. & July.	Philadelphia.	1870	---
2d Mortgage	2,421,000	6	April & Oct.	"	1875	105	2d Mortgage	900,000	7	"	"	1865	---
2d Mortgage Sterling	2,128,400	6	"	London.	1875	---	St. Louis and Iron Mountain:						
State Works Bonds	7,000,000	6	Jan. & July.	Harrisburg.	1894	105½	State (Mo.) Aid	3,501,000	6	---	New York.	---	90
Penobscot and Kennebec:							St. Louis City Subscription	500,000	---	---	---	---	---
Bangor City 1st Mortg. (Coupon)	780,000	6	April & Oct.	Boston.	'74-'75	---	St. Louis County Subscription	1,000,000	---	---	---	---	---
2d Mortgage (Coupon)	277,000	6	Feb. & Aug.	Bangor.	1876	---	Sunbury and Erie:						
3d Mortgage (Coupon)	156,600	6	March & Sept.	"	1871	---	1st Mort. (Sunbury to W'msp't)	1,000,000	7	April & Oct.	Philadelphia.	1877	111½
Peoria and Oquawka:							Mortgage (half to State)	7,000,000	5	Jan. & July.	"	'75-'78	---
1st Mortg. (W. Ext.) convertible.	500,000	8	May & Nov.	New York.	1862	---	Syracuse, Binghamton and N. Y.:						
1st Mortg. (E. Ext.) convertible.	500,000	8	June & Dec.	"	1873	---	1st Mortgage Coupon	1,400,000	7	April & Oct.	New York.	1876	---
Petersburg and Lynchburg (S. Side):							St. Louis, Alton & Terre Haute:						
State (Va.) Loan (S. F.)	800,000	7	---	---	---	---	1st Mortgage (series A)	1,100,000	7	Jan. & July.	New York.	1894	104
1st Mortgage (1869-'70-'76)	365,000	6	---	---	---	var.	" " (series B)	1,100,000	7	April & Oct.	"	1894	---
3d Mortgage (1862-'70-'72)	378,000	6	---	---	---	var.	2d " pref. (series C)	1,400,000	7	Feb. & Aug.	"	1894	92½
Special Mortgage (1865-'68)	175,000	6	---	---	---	var.	" " (series D)	1,400,000	7	May & Nov.	"	1894	---
Last Mortgage (1861 to 1869)	133,500	8	---	---	---	var.	" " Income (series E)	1,700,000	7	"	"	1894	57
Phila. Germant'n and Norris'n:							Tennessee and Alabama:						
Consolidated Loan	119,800	6	Jan. & July.	Philadelphia.	1865	105	State (Tenn.) Loan	814,000	---	---	---	---	---
Convertible Loan	292,500	6	"	"	1885	119	Terre Haute and Richmond:						
Philadelphia and Reading:							1st Mortgage (convertible)	171,000	7	March & Sept.	New York.	1866	---
Bonds of 1836 (unconvertible)	408,000	5	Jan. & July.	Philadelphia.	1867	---	Toledo and Wabash:						
" 1836	192,000	5	"	"	1880	103	1st M. (Toledo and Wabash)	900,000	7	Feb. & Aug.	New York.	1866	100
" 1840	3,084,600	6	April & Oct.	"	1870	105½	1st M. (L. E. Wab. and St. Louis)	2,500,000	7	"	"	1866	100
" 1861	273,000	6	Jan. & July.	"	1871	109	2d M. (Toledo and Wabash)	1,000,000	7	May & Nov.	"	1878	95
" 1843	1,531,300	6	"	"	1880	109	2d M. (Wabash and Western)	1,500,000	7	"	"	1878	95
" 1844 (convertible)	868,000	6	"	"	1880	109	Interest Bonds	245,700	7	---	---	---	94
" 1848	124,000	6	"	"	1880	110	*Vermont Central:						
" 1849	83,000	6	"	"	1880	110	1st Mortgage Coupon	2,000,000	7	May & Nov.	Boston.	1861	86½
" 1867	3,417,000	6	"	"	1886	123	2d Mortgage Coupon	1,135,000	7	Jan. & July.	"	1867	22
" 1866	1,470,000	7	"	"	1886	102½	Virginia Central:						
Phila. Wilmington and Baltimore:							Mort. guaranteed by State of Va.	100,000	6	Jan. & July.	Richmond.	1880	85
Mortgage Loan	2,490,500	6	Jan. & July.	Philadelphia.	1884	135	Mortgage (coupons)	198,000	5	"	Richm'd &	1872	---
Improvement	88,500	6	May & Nov.	Boston.	1863	---	Mortgage (coupons)	926,000	6	"	New York.	1884	---
Pittsburg and Connellsville:							Virginia and Tennessee:						
1st Mortgage (Turtle Cr. Div.)	400,000	6	Feb. & Aug.	New York.	1889	---	State (Va.) Loan	1,000,000	6	Jan. & July.	Richmond.	1887	---
Pittsb'g, Ft. Wayne and Chicago:							1st Mortgage	500,000	6	"	New York.	1872	80
1st Mortgage (series A)	875,000	7	Jan. & July.	New York.	1912	110½	2d or Enlarged Mortgage	1,000,000	6	"	"	1884	20
" (series B)	875,000	7	Feb. & Aug.	"	1912	---	Salt Works Br. Mort. due '58-'61	203,000	6	"	Lynchburg.	var.	---
" (series C)	875,000	7	Mar. & Sept.	"	1912	---	Warren (N. J.):						
" (series D)	875,000	7	April & Oct.	"	1912	---	1st Mortgage	568,500	7	Feb. & Aug.	New York.	1875	---
" (series E)	875,000	7	May & Nov.	"	1912	---	Warwick Valley, N. Y.:						
" (series F)	875,000	7	Jun. & Dec.	"	1912	---	1st Mortgage	60,000	7	April & Oct.	New York.	1880	87½
2d " (series G)	860,000	7	Jan. & July.	"	1912	105	2d Mortgage	25,000	7	Jan. & July.	Chester.	1871	70
" (series H)	860,000	7	Feb. & Aug.	"	1912	---	Watertown and Rome:						
" (series I)	860,000	7	Mar. & Sept.	"	1912	---	Mortgage (new bonds)	800,000	7	March & Sept.	New York.	1880	---
" (series K)	860,000	7	April & Oct.	"	1912	---	Western (Mass.):						
" (series L)	860,000	7	May & Nov.	"	1912	---	Sterling (£899,900)	4,319,520	5	April & Oct.	London.	'68-'71	---
" (series M)	860,000	7	June & Dec.	"	1912	---	Dollar Bonds	850,000	6	"	Boston.	1875	105½
3d " "	2,000,000	7	April	"	1912	86	Albany City Bonds	1,000,000	6	Jan. & July.	"	'66-'76	dem.
Bridge Bonds	188,000	7	May & Nov.	Philadelphia.	1876	---	Hudson & Boston R. R. Loan	150,000	6	June & Dec.	"	---	---
Chicago Depot Bonds	297,753	6	May & Nov.	Chicago.	1865	---	Elmira and Williamsport:						
" "	39,420	8	May & Nov.	"	1865	---	1st Mortgage	1,000,000	7	Jan. & July.	Philadelphia.	1880	109½
Pittsburg and Steubenville:							Wilmington and Manchester:						
Mortgage	800,000	7	Feb. & Aug.	New York.	1865	---	1st Mortgage	596,000	7	May & Nov.	New York.	1866	69½
Potomac and Watertown:							2d Mortgage	200,000	7	"	"	1872	---
1st Mortgage	1,000,000	7	June & Dec.	New York.	'64-'74	---	Wilmington and Weldon:						
Quincy and Chicago:							Mortgage, payable in England	443,555	6	Jan. & July.	London.	1863	---
1st Mortgage	1,300,000	---	---	---	1873	---	Sterling, issued in 1855	144,500	6	---	---	1868	---
							Company's, endorsed by State.	180,000	6	---	---	1873	---



## RAILROAD SHARE LIST, including Mileage, Rolling Stock, etc., etc.

An asterisk (\*) occurring in the column headed "Rolling Stock," signifies that the cost is included in that of "Railroad and Appurtenances." A dash (-) signifies "nil." Running dots (.....) signify "not ascertained." Land-Grant Railroads are in "italics."

Price.	Years ending.	Railroad.				Equipment.			Companies.	Abstract of Balance Sheet.										Earnings.				Price of shares.
		Main Line.	Lateral and Branch Lines	2nd Trunk and Siding.	Road in progress or projected.	Engines.	Cars.			Property and Assets.		Liabilities.				Total, incl. all other assets and liabilities.	Road operated, incl. road leased, etc.	Mileage run by locomotives with trains.	Gross.	Net.	Dividends.			
							Passenger.	Freight, etc.		Railroad and Appurtenances.	Rolling Stock.	Invested in foreign works.	Share Capital paid in.	Bonded and Mortgage Debt.	Floating Debt.									
35		M.	M.	M.	M.	No.	No.	No.		\$	\$	\$	\$	\$	\$	\$	M.	M.	\$	\$	P. C.			
ALABAMA.																								
	30 Jun. '60	65.0			50.6				Alabama and Florida	1,451,336	*		877,953	503,500	105,255	1,515,704	54.0		101,102	37,866				
	23 Feb. '59	30.3			58.1	2	2	19	Alabama and Mississippi	461,506	30,991		335,010	109,500	21,632	618,965	30.3		55,791	31,852				
	31 May '60	109.6			57.8	11	9	102	Ala. and Tennessee Rivers	2,261,927	184,906		1,067,006	777,777	240,485	2,476,028	109.6		207,626	111,232				
	30 Jun. '59	57.0			171.3				Mobile and Girard	1,500,000	*						57.0	236,791	76,773	21,006				
	1 Apr. '61				87.2	1	2	10	Mobile and Great Northern	590,216	*		600,431			600,431								
	1 May, '61	469.3	13.5		49.4	40	28	502	Mobile and Ohio	12,000,000	*								1,702,858	695,370				
74 1/4	29 Feb. '60	88.5	28.4		209.5	23	14	283	Montgomery and West Point	1,838,718	427,265	100,000	1,419,769	922,622	23,679	2,582,506	116.9		505,156	260,269	6			
	1 May, '61								North East and South West															
ARKANSAS.																								
	30 Nov. '58	38.5			301.4				Cairo and Fulton															
					107.5				Memphis and Little Rock	553,877	*		351,524	446,000	10,725	811,949								
CALIFORNIA.																								
	30 Dec. '60	22.5							Sacramento Valley	1,493,860	*		793,350	700,000		1,493,860	22.5		230,251	104,594				
CONNECTICUT.																								
	1 Feb. '63	23.8			8.2	4	5	44	Danbury and Norwalk	844,475	66,483		307,010	100,000		418,825	23.8	47,301	61,546	36,019	5			
	30 Sep. '62	122.4			15.0	75.1	16	20	241	Hartford, Provid. and Fishkill	3,902,366	302,511	1,936,740	2,037,500	211,574	4,443,584	122.4	229,088	301,402	126,918				
	31 Aug. '62	61.4	1.6		8.9	18	21	302	Hartford and New Haven	3,216,846	254,000	102,888	2,350,000	927,000		4,068,215	73.0	374,460	747,300	390,299	114	142		
	31 Dec. '62	74.0			64.5	11	17	256	Housatonic (preferred)	2,439,775	*		2,000,000	240,000	61,872	2,625,236	124.0		284,455	70,187	4			
	31 Dec. '62	57.0			1.3	7	11	175	Naugatuck	1,210,899	200,000	11,850	1,031,800	358,050	28,924	1,594,661	62.0		206,420	97,700	6			
	31 Dec. '62	62.0			2.6	6	12	29	N. Haven, N. London and Ston.	1,454,040			738,538	750,000	156,429	1,644,967	62.0	127,390	135,072			117		
	31 Dec. '62	75.9	8.8		7.2	3	8		New Haven and Northampton	1,774,456	38,023		1,010,000	650,000		1,812,475	operated by N. Y. & N. H.	161,731	38,766	4	5			
	31 Dec. '62	66.0			5.9	7	7	91	New London Northern	677,552	*		602,152	75,528		696,827	66.0	156,906	161,731	38,766	5	90		
	31 Mar. '63	61.3	1.0	63.8	28	74	407		New York and New Haven	4,643,832	712,493		3,000,000	2,000,000		5,754,362	117.4	518,510	1,036,437	454,096	12	128		
	30 Nov. '62	69.4	7.0	8.5	15	17	313		Norwich and Worcester	2,463,983	149,711	214,100	2,122,600	799,360	9,298	3,064,867	66.4	294,173	353,664	158,927		97 1/2		
DELAWARE.																								
	31 Oct. '60	84.3			10.7				Delaware	1,552,257			406,132	870,000	271,877	1,607,684	84.3	136,631	188,970	41,466				
	31 Oct. '62	16.2							Newcastle and Frenchtown	704,860		18,535	744,520		5,024	749,544	5.0		27,283	10,290	9			
FLORIDA.																								
		154.2			150				Florida															
	30 Apr. '60	32.0			3.0	13.0	3	1	Florida and Alabama	532,791	30,586		191,485	195,000	75,594	619,112	32.0		7,857	3,535				
		59.9			5.0				Flo., Atlantic and Gulf Central															
		100.0	3.9		10.0	153.5			Pensacola and Georgia								29.4							
GEORGIA.																								
	30 Jun. '60	86.7				16	7	124	Atlanta and West Point	1,192,389	*		1,250,000	126,000		1,597,385	86.7		418,036	205,827	8	125		
		92.6			8.7	70.9			Atlantic and Gulf—M. Trunk								30.0							
	31 Dec. '60	53.0							Augusta and Savannah	1,032,200	*		733,700	129,500			53.0		168,988	95,612				
	30 Apr. '60	43.5			23.7				Brunswick and Florida	755,000	*		151,887				81.0							
	30 Nov. '60	91.0				53	62	697	Central of Georgia (and Bank)	4,366,800	*		4,366,800			6,590,178	229.0	879,468	1,715,025	764,574	10			
	31 Mar. '60	171.0	61.0						Georgia (and Bank)	4,156,000	*	1,003,650	4,156,000	312,500		8,123,343	232.0	1,159,188	628,043	8	109			
	30 Nov. '60	102.5				19	16	171	Macon and Western	1,500,000	*		1,500,000		12,295	1,668,976	102.5	226,241	404,618	212,676	19	72		
	31 July '59	50.0				7	2	107	Muscogee	774,244	162,534		669,950	249,000		1,026,868	50.0		202,714	110,516	8			
	1 May, '58	68.1				3	4	33	Savannah, Albany and Gulf	1,386,634	52,374		1,275,901	10,200	180,621	1,473,140	71.6							
	31 July '60	106.1	100.8	16.2		18	22	201	South Western	3,770,425	*		2,921,900	396,500	19,913	3,822,913	228.8			388,853	13			
	30 Sep. '59	138.0				52	24	705	Western and Atlantic	5,901,497	*		built and owned by State.				138.0		582,848	464,541				
ILLINOIS.																								
	31 Dec. '62	220.0				35	38	712	Chicago and Alton	8,117,539	*		4,244,222	4,100,000	157,877	8,721,057	281.0	976,381	1,225,001	457,794		82		
	30 Apr. '63	138.0			26.0	73	46	1,249	Chic., Burlington and Quincy	6,444,452	1,490,361	4,438,510	5,738,640	6,102,594		13,159,500	263.0	1,205,146	2,412,821	1,206,099	8	125 1/2		
	31 Dec. '58	45.0				6	14	101	Chicago and Milwaukee	1,799,894	67,869	120,000	938,000	762,886	188,086	2,050,066	45.0	14 mo.	243,282	135,254		70		
	1 Apr. '63	242.0			29.0	36	23	705	Chicago and Northwestern	12,325,859	510,983		3,731,316	8,335,000	226,641	13,147,136	242.0		1,033,054	448,503		41		
104	31 Mar. '63	181.8				61	57	960	Chicago and Rock Island	7,069,728	*		5,603,000	1,467,000		7,743,039	234.0		1,030,884	1,629,141	513,100	6	109 1/2	
	10 Nov. '62	33.2							Fox River Valley	800,000	*			580,000			84.0							
92 1/4	31 Dec. '62	140.0	80.4	74.5		66	63	1,369	Galena and Chicago Union	8,108,705	1,311,917	248,560	6,028,400	3,355,000		10,551,145	341.7	1,420,341	1,777,541	584,005	6	112 1/2		
	31 May, '62	174.5	5.5	14.3		20	21	472	Great Western	2,054,590	*		1,600,000	2,391,000		180.0		404,700	591,409	237,005		65 1/2		
87	31 Dec. '62	454.8	252.5			112	94	2,355	Illinois Central	27,675,671	*		10,324,390	15,000,500		36,071,630	708.3	2,561,192	3,446,827	1,570,723	4	128 1/2		
					81.5				Illinois River															
		148.0							Ohio and Mississippi	4,870,586	*		1,780,295	3,292,403			148.0							
		46.6							Peoria and Bureau Valley					600,000			oper. by Chic. & R. Is.			125,000				
		188.0			129.0				Peoria and Hannibal				1,569,539	2,200,000			188.0							
100	31 Dec. '62	100.0							Peoria and Oquawka	5,400,000	*													
700									Quincy and Chicago	1,978,555	*		800,000	1,200,000		2,000,000	100.0	oper. by Bur. & Quincy.						
95	31 Dec. '62	189.0	14	122		31	30	424	Rock Island Bridge								oper. by Chic. & R. Is.							
94									St. Louis, Alton & Terre Haute	10,400,000	*		3,700,000	6,700,000		10,400,000	203.0		1,117,693	568,020				
INDIANA.																								
		108.0							Cincinnati and Chicago	2,090,433	*		1,106,679	1,006,125			108.0							
		29.0			73.0				Cincinnati, Peru and Chicago								29.0							
85 1/2	31 Aug. '57	109.0							Evansville and Crawfordsville	2,233,413	*	2,750	986,061	1,219,100	51,772	2,283,748	109.0		249,867	119,342				
22	31 Dec. '62	72.4				19	17	266	Indiana Central	1,667,639	274,081	26,641	611,030	1,254,500	15,900	2,102,761	109.0		442,893	158,541				
	31 Dec. '58	89.8	20.2			23	19	313	Indianapolis and Cincinnati	2,497,962	540,443	25,689	1,689,900	1,362,284	140,659	3,468,108	110.0		448,568	230,834				
85	31 Dec. '62	84.0							Ind., Pittsburg and Cleveland	1,379,880	*	10,000	835,971	991,400	11,036	2,193,839	84.0		460,079	247,338				
	31 Dec. '62	78.0				15	14	201	Jeffersonville	1,549,518	*	278,334	1,016,907	621,000		2,175,223	108.0		312,559	527,863	208,156			
		59							Lafayette and Indianapolis	1,850,000	*		2,000,000	600,000			64.0							
	31 Dec. '60																							

## RAILROAD SHARE LIST, including Mileage, Rolling Stock, etc., etc.

An asterisk (\*) occurring in the column headed "Rolling-Stock," signifies that the cost is included in that of "Railroad and Appurtenances." A dash (—) signifies "not ascertained." Running dots (.....) signify "not ascertained." Land-Grant Railroads are in *italics*.

Years ending.	Railroad.			Road in progress or projected.	Equipment.			Companies.	Abstract of Balance Sheet.										Earnings.																				
	Main Line.	Lateral and Branch Lines.	2nd Track and Sidings.		Engines.	Cars.			Property and Assets.	Liabilities.					Balance Total, incl. all other assets and liabilities.	Road operated, incl. road leased, etc.	Mileage run by locomotives with trains.	Gross.	Net.	Dividends.	Price of shares.																		
						Passenger.	Freight, etc.			Share Capital paid in.	Bonded and Mortgage Debt.	Floating Debt.																											
													Railroad and appurtenances.	Rolling-Stock.								Invested in foreign works.																	
M.	M.	M.	M.	No.	No.	No.													P. c.																				
MAINE.																																							
30 Nov. '62	36.5				6	4	71	Androscoggin	1,050,000	*		151,833	444,638	295,584	757,381	36.5	76,844	79,761	43,461																				
31 May, '62	55.0				9	10	128	Androscoggin and Kennebec	2,210,947		21,925	457,900	1,733,857	184,512	2,385,130	137.0	171,593	254,242	74,105																				
30 Jun. '62	149.0		26.0		41	17	349	Atlantic and St. Lawrence	6,788,205	867,734		2,494,900	3,472,000		7,983,476	149.0	oper. by G. L. T. K.																						
30 Jun. '69	12.5		2.0		4	3	45	Bangor, Oldtown and Milford	244,726			135,000		40,576	244,726	12.5		30,830	Loss.																				
30 Sep. '61	63.0	9.5	8.0		12	11	120	Kennebec and Portland	2,871,264	*		1,287,779	1,280,000	271,143	2,990,998	109.5	139,968	172,113	91,487																				
31 Dec. '59				14.0				Penobscot	328,412			180,497	300,000	75,000																									
31 May, '62	54.7				4	10	93	Penobscot and Kennebec	1,613,473	104,019	78,014	557,829	1,213,600	73,912	1,860,674	54.7	oper. by An. & K.	55,573																					
31 May, '62	51.3				19	3	108	Portland, Saco and Portsmouth	1,494,792		5,208	1,500,000			1,500,000	51.3	169,476	207,484	94,900	6																			
31 May, '59	37.0							Somerset and Kennebec	783,763	*		169,200	556,600		1,500,000	37.0		56,403	25,404																				
31 May, '61	18.5			33.5				York and Cumberland	1,090,000			370,000	460,000	270,000	1,090,000	18.5		26,386																					
MARYLAND.																																							
30 Sep. '60	279.6	7.3			235	124	3,272	Baltimore and Ohio	21,314,042	3,604,731	3,679,907	13,118,902	10,781,833	566,070	31,241,011	269.8		3,922,203	2,305,788	6	92																		
30 Sep. '60	30.0				7	33	167	Washington Branch	1,650,000			1,650,000			1,650,000	30.0	187,427	462,880	290,840	9	125																		
31 Dec. '62	138.0	4.0	16.4		51	28	1,647	Northern Central	7,635,009	774,568	468,133	2,260,000	5,150,000	402,054	9,838,621	156.0	940,558	1,920,641	927,341	4	45																		
MASSACHUSETTS.																																							
30 Nov. '62	21.2		2.1		21	37	602	Berkshire	500,000	100,000		800,000			600,000	21.2		42,000	42,000	7	166																		
30 Nov. '62	23.7	1.8	43.6		34	67	531	Boston and Lowell	2,245,145	183,345		1,830,000	440,000	21,046	2,755,815	70.9	336,565	421,969	136,191	61	166																		
30 Nov. '62	74.8	8.8	51.1		34	67	531	Boston and Maine	3,890,350	396,534	496,903	4,076,974		86,656	4,774,086	119.3	615,761	835,137	378,123	7	128																		
30 Nov. '62	47.0	7.0	32.5		25	40	209	Boston and Providence	2,952,000	207,400		3,160,000	122,720		3,462,989	61.8	435,121	702,222	355,362	8	132																		
30 Nov. '62	44.6	24.0	60.1		30	63	273	Boston and Worcester	4,062,594	437,416	100,000	4,500,000		93,654	5,335,584	53.6	564,117	1,006,130	490,304	8	137																		
30 Nov. '62	46.0	1.1	2.7		17	15	102	Cape Cod Branch	907,760	123,866		681,554	141,600		1,085,074	47.1	75,219	102,627	50,053	21	60																		
30 Nov. '62	50.0	2.4	8.8		12	19	176	Connecticut River	1,614,386	187,558		1,591,100	250,000		1,900,919	52.4	170,018	268,152	133,854	6	105																		
30 Nov. '62	44.2	30.5	25.2		26	54	413	Eastern	3,912,207	315,165	264,102	2,853,400	1,912,600	30,000	4,766,000	89.0	452,168	635,629	315,734	102	—																		
30 Nov. '62	19.9	1.3	3.8					Essex	742,592	4,416		299,108	280,261	184,760	764,119	21.2	56,482	55,601	15,108	6	—																		
30 Nov. '62	50.9	42.5	74.5		23	36	646	Fitchburg	3,189,851	350,149		3,540,000			3,829,341	83.4	342,542	580,580	254,146	6	115																		
30 Nov. '62	14.0		2.8		4	4	36	Fitchburg and Worcester	234,774	40,226		219,526		64,100	289,772	28.4	35,739	38,588	4,619	—	—																		
30 Nov. '62	29.8		3.0		3	3	36	Hampshire and Hampden	577,933	28,748		292,951		303,014	606,681	29.8	27,424	16,244	1,233	—	—																		
30 Nov. '62	12.4		2.3		2	4	26	Lowell and Lawrence	332,885	30,376		200,000		75,000	367,182	12.4		21,780	21,780	—	—																		
30 Nov. '62	14.5		17.2		11	19	337	Nashua and Lowell	658,919	95,684		600,000			802,401	71.0	148,515	188,183	46,640	8	125																		
30 Nov. '62	20.1	1.6	1.1		5	14	74	New Bedford and Taunton	602,760	64,214	14,000	500,000	300,000		800,000	36.7	42,262	134,178	45,893	5	87																		
30 Nov. '62	27.0		2.4					Newburyport	597,386			220,340	224,900	140,902	597,386		oper. by B. & M. Co.				—																		
30 Nov. '62	25.0		8.0		8	4	13	N. York and Boston Air Line	832,164	46,269		293,701	550,000	175,672	1,019,373	25.0	53,624	44,589	9,653	—	—																		
30 Nov. '62	79.5	7.8	25.5		24	64	486	Old Colony and Fall River	3,008,445	354,503		3,015,100	350,500	134,058	4,187,740	102.1	388,585	580,150	312,031	6	143																		
30 Nov. '62	18.7				1	2	1	Pittsfield & N. Adams, guar.	432,439	11,247		450,000			450,000	18.7	24,900	43,142	23,677	6	109																		
30 Nov. '62	43.4	1.0	14.9		18	18	352	Providence and Worcester	1,081,086	262,815		1,600,000	97,000		1,697,000	44.4	206,064	327,457	161,357	8	180																		
30 Nov. '62	16.9		1.7					Salem and Lowell	381,470	82,543		243,503	226,900	464	471,170	ope. r. by B. and L. P.			17,500	4	110																		
30 Nov. '62	11.5		0.4		2	9	17	South Shore	462,367	39,226		259,685	150,000	1,466	531,715	ope. r. by B. and L. P.			—	—	—																		
30 Nov. '62	21.9		1.1					Stockbridge and Pittsfield	444,600	4,100		448,700			448,700	ope. r. by Housatonic			—	—	—																		
30 Nov. '62	11.1	0.6	1.2		3	10	70	Taunton Branch	250,000			250,000			239,740	11.7	51,210	134,018	23,376	9	126																		
30 Nov. '62	6.1			36.5				Troy and Greenfield	1,756,370			923,810	979,308	42,352	1,945,470	ope. r. by T. and B.			—	—	—																		
30 Nov. '62	99.3	8.0	5.5		11	13	180	Vermont and Massachusetts	3,309,557	207,343		2,214,225	990,525		3,510,900	77.3	112,242	216,065	115,241	—	—																		
30 Nov. '62	156.1	17.3	126.6		73	61	1,179	Western (incl. Alb. & W.S. etc.)	10,179,764	1,096,712		6,417,520	47,000	14,424,472	218.0	1,257,301	2,095,922	984,564	8	149																			
30 Nov. '62	46.7		9.3		10	12	145	Worcester and Nashua	1,147,044	123,353		1,141,000	141,500	1,130	1,356,645	46.7	164,248	200,744	92,979	54	82																		
MICHIGAN.																																							
1 Jun. '62	17.3			27	2	1	100	Bay de Noquet and Marquette																															
30 Sep. '62	57.0							Chic. Detroit & Can. G. T. Junc.	8,270,623	647,696																													
30 Jun. '62	188.0							Detroit and Milwaukee																															
								Flint and Pere Marquette																															
								Grand Rapids and Indiana																															
31 May, '63	284.8		28.4		98	85	1,559	Michigan Central	13,805,576			6,057,436	7,999,489		14,834,955	329.3	1,448,558	2,946,580	1,874,200	8	125																		
31 Mar. '63	246.0	251.0			83	110	1,108	Mich. S. W. & N. W. Indiana	13,613,624	1,644,259	1,653,562	9,018,200	9,527,078		18,546,278	527.0	2,060,637	2,813,831	1,461,276		89																		
					89.8			Pori Huron and Milwaukee																															
MINNESOTA.																																							
31 Dec. '62	14.0				6	2	10	Minnesota and Pacific	1,400,000				1,550,000																										
31 Dec. '62								Southern Minnesota					575,000																										
31 Dec. '62								Minneapolis and Cedar Valley					600,000																										
31 Dec. '62								Minnesota Transit					600,000																										
31 Dec. '62								Root River Valley																															
MISSISSIPPI.																																							
30 Apr. '60	236.0				25	22	336	Mississippi Central	4,966,022	756,292		2,000,961	2,554,732	895,992	6,331,899	236.0		584,342	328,092																				
31 Oct. '59	71.4				27.8	7	4	41	Mississippi and Tennessee	1,254,894	159,018	798,285	456,949	275,080	1,974,444	59.7		176,462	116,433																				
31 Dec. '58	83.2				60.4			Southern Mississippi	2,750,000	*		1,000,000	1,400,000			83.2		250,047	121,659																				
MISSOURI.																																				</			



## RAILROAD SHARE LIST, including Mileage, Rolling Stock, etc., etc.

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Years ending.	Railroad.				Equipment.			Companies.	Abstract of Balance Sheet.										Earnings.				Price of shares.
	Main Line.	Lateral and Branch Lines.	2nd Track and Sidings.	Road in progress or projected.	Engines.	Cars.			Property and Assets.			Liabilities.				Balance Total, incl. all other assets and liabilities.	Road operated, incl. leased, etc.	Mileage run by locomotives with trains.	Gross.		Dividends.		
						Passenger.	Freight, etc.		Railroad and Appurtenances.	Rolling Stock.	Invested in foreign works.	Share Capital paid in.	Borrowed and Mortgage Debt.	Floating Debt.	Gross.				Net.				
																				No.		No.	
M.	M.	M.	M.	No.	No.	No.		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	p. c.			
30 Sep. '62	2.0			137.0	1	10		<b>NEW YORK.</b>	1,044,914	6,387		891,575	200,000	8,500	1,100,075								
30 Sep. '62	11.5		3.3	21.5	4	4		Albany and Susquehanna	600,000			600,000			600,000								
30 Sep. '62	48.9		2.8					Albany and Vermont	2,250,277	85,207		687,872	1,607,500	25,568	2,820,940								
30 Sep. '62	14.8		1.6					Atlantic and Great Western	498,217			250,000	220,000		498,217								
30 Sep. '62	5.4		0.4					Blossburg and Corning	164,521	71,516		200,000	27,500	324	236,036								
30 Sep. '62	14.6		9.5					Broadway (Brooklyn)	675,687	119,225		402,050	252,100	62,967	807,217								
30 Sep. '62	28.3		26.9	1.9	169			Brooklyn Central and Jamaica	1,020,370	312,130		1,000,000	170,000	10,000	1,332,506								
30 Sep. '62	5.3		5.3	16.2	25			Brooklyn City	267,625			346,000	140,000	8,000	600,000								
30 Sep. '62	142.0		13.0		28	32		Brooklyn City and Newtown	3,188,461		160,677	850,000	2,420,714	136,547	3,682,852								
30 Sep. '62	68.3		14.5		29	24		Buffalo and State Line	2,277,338	506,576	149,000	1,977,950	949,000		2,926,950								
30 Sep. '62	10.5	0.3	4.5		20			Coney Island and Brooklyn	501,304			493,800	7,000	2,717	505,517								
30 Sep. '62	6.8		6.3		32			Elmira and State Line	874,128	64,237		800,000		26,000	938,365								
30 Sep. '62	46.8		2.9					Elmira, Jefferson & Canand.	500,000			500,000			500,000								
30 Sep. '62	446.0	19.0	290.0		226	101	3,279	Elmira	39,985,292	*		19,973,200	19,831,500	480,665	40,285,265								
30 Sep. '62	144.0	4.0	115.1		65	117	988	Hudson River	10,749,863	1,363,931		3,758,466	9,363,750	298,424	13,420,640								
30 Sep. '62	94.0	2.5	11.4		14	37	117	Long Island	2,567,162	361,312		1,852,716	782,462	16,213	2,928,474								
30 Sep. '62	297.8	268.1	391.8		229	231	3,395	New York Central	26,207,148	5,257,077	782,580	24,000,000	14,279,593		41,866,835								
30 Sep. '62	130.7	2.1	29.0		32	77	441	New York and Harlem	9,885,740	650,804		5,717,100	5,995,061	69,136	11,781,297								
30 Sep. '62	93.6	1.64	6.9					Niagara Bridge and Canand.	1,000,000			1,000,000			1,000,000								
30 Sep. '62	5.0		5.0		42			Ninth Avenue (New York)	551,174	24,600		795,380			795,380								
30 Sep. '62	118.0	3.8	17.8		28	14	450	Northern (Ogdensburg)	4,091,455	728,524		4,571,900	1,494,900		6,066,800								
30 Sep. '62	35.9		2.2		6	10	54	Oswego and Syracuse	698,935	116,626		396,340	208,500		610,000								
30 Sep. '62	25.2		2.0		7	11	66	Rensselaer and Saratoga	742,980	167,048		610,000	244,750		900,028								
30 Sep. '62	172.1	17.5	15.4		22	17	358	Rome, Water'n & Ogdensburg	3,092,378	368,306		1,499,100	1,923,000	64,292	3,486,392								
30 Sep. '62	21.0		1.6					Saratoga and Schenectady	480,884			300,000	376,000		480,884								
30 Sep. '62	40.9	6.6	3.9		8	11	84	Saratoga and Whitehall	824,922	77,585		500,000	450,000	42,500	1,142,500								
30 Sep. '62	8.0		8.0					Second Avenue (New York)	877,694	209,623		750,000	25,000		1,089,317								
30 Sep. '62	4.0		4.4		89			Sixth Avenue (New York)	287,106	38,443		63,102	198,687	70,919	327,708								
30 Sep. '62	13.0		0.4		12	12	117	Syracuse Island	2,863,540	2,654		1,200,130	1,640,757	103,570	2,944,457								
30 Sep. '62	81.0		7.6		112			Syracuse, Binghamton & N.Y.	1,652,708	104,321		1,700,000	400,000		1,700,000								
30 Sep. '62	8.0		8.5		10	9	125	Third Avenue (New York)	1,371,576	198,937		606,911	808,500	271,097	1,686,508								
30 Sep. '62	34.9		2.7					Troy and Boston	492,500			30,000	180,000		462,500								
30 Sep. '62	15.5		3.7					Troy and Rutland	492,500			30,000	180,000		462,500								
30 Sep. '62	2.1		2.1					Troy Union	752,901			30,000	680,000		752,901								
30 Sep. '62	34.9		2.6	51.4	4	6	39	Utica and Black River	862,089	*		811,660			862,089								
31 May, '60	94.9		6.4					<b>NORTH CAROLINA.</b>	2,167,503	*		1,545,225	400,000	276,372	2,419,401								
30 Sep. '62	223.0							Atlantic and North Carolina	4,235,000			4,000,000			4,235,000								
30 Sep. '62	161.5	15.0			23	18	182	Raleigh and Gaston	1,240,241			973,300	125,200		1,118,500								
30 Sep. '62	161.9				24	32	144	Wilmington and Manchester	2,632,737	*	252,900	1,340,470	1,045,000	61,300	2,934,509								
15 Mar. '60	51.0	3.0		192.5				Wilmington and Weldon	2,869,223	*	107,000	1,340,213	791,055	102,391	3,114,954								
								Western North Carolina	2,000,000		4,700	290,212			70,860	364,072							
31 Dec. '62	118.2				17	12	208	<b>OHIO.</b>	613,281			866,939		77,294	3,376,255								
1 Aug. '61	137.0				41	39	508	Bellefontaine and Indiana	3,080,584		11,000	1,559,812	1,169,000	2,126	3,376,255								
31 Mar. '63	60.3				22	28	432	Central Ohio	5,579,508	922,670	106,133	1,628,356	3,673,000	1,126,458	6,810,432								
31 Dec. '60	30.8				69.1			Cine., Hamilton and Dayton	2,933,788	481,083	91,947	2,155,800	1,334,000		3,985,193								
1 May, '69	131.8				31.0	16	10	Cine. and Indianapolis June	6,250,841			2,441,176	3,032,000	228,973	131.8	304,168							
31 Dec. '62	135.4		56.8		32	32	332	Cine., Wilmington and Zanesv.	4,239,777	723,116	74,010	5,000,000	510,000		6,454,130								
1 Dec. '62	95.5	1.2	29.5		18.0	33	6	Cine. and Columbus and Cine.	3,553,162	298,789	23,340	1,036,055	1,752,400	128,857	2,917,322								
30 Nov. '62	101.2				45	30	340	Cine., Painesville & Ashtabula	4,452,143	590,344		3,300,000	1,500,000		67.0	484,297							
31 May '63	109.2		79.4		32	40	398	Cine. and Toledo	7,830,694			3,832,712	4,324,006	94,329	8,251,646								
31 Dec. '62	61.4				53.0	5	6	Cine. and Toledo	6,700,495	500,727	55,025	3,526,800	3,667,595		7,810,658								
31 Dec. '62	72.0				31.0	6	9	Cine., Zanesville and Cine.	1,574,093			309,673	575,250	632,486	61.5	75,120							
30 Nov. '62	64.5				13	11	218	Columbus and Indianapolis	2,555,000	*		1,600,000	205,000		72.0	144,000							
31 Mar. '63	144.0		10.4		16	8	11	Columbus and Xenia	1,413,388	246,565	541,249	1,490,800	282,900		2,076,302								
31 Aug. '60	36.6		7.9		16	8	37	Dayton and Michigan	5,454,747	339,553	4,800	2,452,217	2,904,190	810,424	6,609,826								
31 Aug. '60	16.0				47.0	3	2	Dayton and Western	999,173	104,912		307,246	716,000	80,845	36.6	62,025							
31 Dec. '61	45.0				6	5	72	Dayton, Xenia and Belpre	880,496			437,838	422,658		1,104,086								
31 Dec. '61	36.0				84.0			Dayton and Hamilton	1,101,744	79,022	62,630	469,762	728,853	152,694	1,358,867								
31 Oct. '61	32.0				6	5	68	Freemont and Indiana	888,000	*		300,000	473,000	75,000	47								

## RAILROAD SHARE LIST, including Mileage, Rolling Stock, etc., etc.

An asterisk (\*) occurring in the column headed "Rolling-Stock," signifies that the cost is included in that of "Railroad and Appurtenances." A dash (—) signifies "nil." Running dots (....) signify "not ascertained." Land-Grant Railroads are in *italics*.

Year ending.	Railroad.				Equipment.			Companies.	Abstract of Balance Sheet.										Earnings.						
	Main Line.	Lateral and Branch Line.	2nd Track and Siding.	Road in progress or projected.	Cars.				Property and Assets.					Liabilities.					Total, incl. all other assets and liabilities.	Road operated, incl. road leased, etc.	Mileage run by locomotives with trains.	Earnings.		Dividends.	Price of shares.
					Engines.	Passenger.	Freight, etc.		Railroad and Appurtenances.	Rolling Stock.	Invested in foreign works.	Share Capital paid in.	Bonded and Mortgage Debt.	Floating Debt.	Gross.	Net.									
	M.	M.	M.	M.	No.	No.	No.		\$	\$	\$	\$	\$	\$	\$	\$	M.	M.	\$	\$	P. c.				
31 Oct. '62	28.2		1.9					PENNSYLVANIA, (Continued.)																	
31 Oct. '62	95.9		34.8		37	110	630	Philadelphia and Trenton	562,422	51,460		999,200	250,000		1,249,200	28.2	102,364	432,351	228,844	8	---				
31 Oct. '62	95.9		34.8		37	110	630	Phila., Wilmington and Balt.	9,759,924	744,425	351,129	5,620,500	2,579,000		9,508,406	200.5	582,616	2,250,862	1,080,995	9	684				
31 Dec. '62	468.3		50.7		121	61	1,312	Pittsburg and Connellsville	2,036,181	109,202		1,763,122	1,500,000	110,417	3,501,853	72.0	194,000	129,918	50,379	8	---				
31 Oct. '62	64.0		1.1		7	4	66	Pittsbg, Ft. Wayne & Chicago	17,736,353	*		5,709,592	12,935,173	312,399	19,451,676	468.3	2,694,467	3,745,311	1,802,995	87	---				
31 Oct. '62	64.0		1.1		7	4	66	Schuylkill and Susquehanna	1,197,774	*		1,289,150	97,000	8,405	1,374,555	55.5	82,809	79,618	9,338	5	---				
31 Oct. '62	64.0		1.1		7	4	66	Schuylkill Valley	676,050			576,950			576,050		oper. by	Ph. & R.	ending	5	---				
31 Oct. '62	28.0		6.2		5	1	439	Shamokin Valley & Pottsville	1,178,773	112,824		500,000	791,597	5,659	1,297,256		57,923	159,534	99,090	39	---				
31 Oct. '62	29.6		2.5		4	4	101	Tioga	719,914	77,999		97,550	396,500	65,826	797,913	29.6	81,934	134,788	97,892	9	43				
31 Dec. '62	26.4		3.0		5	11	23	Westchester and Philadelphia	1,387,074			683,431	953,205	8,000	1,644,639	26.4	105,800	141,101	79,544	4	---				
31 Aug. '62	50.0		2.0		12	17	103	RHODE ISLAND.																	
30 Nov. '62	13.6		0.6		4	3	7	N. Y., Providence and Boston	2,158,000	*		1,508,000	256,800		---	62.0	302,600	311,370	140,707	6	55				
31 Dec. '62	13.6		0.6		4	3	7	Providence, Warren & Bristol	424,943	13,299		47,717	8,500		---	13.6	28,954	25,594	6,739	---	---				
31 Dec. '62	13.2		1.5		182.4	2	26	SOUTH CAROLINA.																	
31 Dec. '62	54.9		47.4		4	3	21	Blue Ridge	2,126,539			1,916,515	217,577		2,134,092	13.2	---	---	---	---	---				
31 Dec. '62	54.9		47.4		4	3	21	Charleston and Savannah	801,615	34,372	250,000	706,365	195,266	197,905	1,099,536	51.9	---	---	---	---	---				
31 Dec. '62	109.6		13.9		13	9	176	Charlotte and South Carolina	1,719,045			1,201,000	384,000		1,585,000	109.6	---	283,263	151,536	6	---				
1 Jan. '63	40.3		---		---	---	---	Cheraw and Darlington	600,000			400,000	200,000		600,000	40.3	---	---	---	---	---				
31 Aug. '62	143.2		21.3		---	---	---	Greenville and Columbia	2,439,769	324,161		1,429,008	1,145,000	345,546	2,919,554	143.2	---	341,100	125,871	---	---				
31 July '62	22.5		---		---	---	---	Kings Mountain	196,230			200,000			200,000	22.5	---	---	---	---	---				
23 Feb. '63	32.0		---		---	---	---	Laurens	543,403			400,000	106,218		575,729	32.0	---	27,568	8,527	---	---				
31 Dec. '60	102.0		---		---	---	---	North-Eastern	2,011,652			985,743	960,410	108,172	2,057,325	102.0	---	220,014	96,145	---	---				
31 Dec. '60	136.0		106.0		62	59	790	South Carolina	---	---	---	---	---	---	---	---	---	1,499,636	701,943	7	---				
31 July '62	25.1		---		41.9	---	---	Spartanburg and Union	---	---	---	---	---	---	---	25.1	---	---	---	---	---				
30 Sep. '60	47.6		---		---	---	---	TENNESSEE.																	
1859.	---		---		17.0	2	14	Central Southern (Tenn.)	1,021,439	58,133	*	505,214	514,000	99,110	1,137,707	47.6	---	29,987	19,187	---	---				
1859.	---		---		12	10	171	Edgfield and Kentucky	857,947			333,204	612,000	60,900	---	30.0	29,845	9,359	7,496	---	---				
1859.	---		---		10	10	128	East Tennessee and Georgia	3,637,367			1,239,673	2,020,000	200,000	---	140.0	---	318,718	187,466	---	---				
1859.	---		---		43	37	607	East Tennessee and Virginia	2,310,933	156,264		536,654	1,902,000	390,407	---	130.3	150,142	297,806	149,167	---	---				
1859.	---		---		9	6	242	Memphis and Charleston	5,866,578	878,069	129,364	3,809,949	2,659,000	280,112	7,627,797	291.0	---	1,635,096	873,597	---	---				
1859.	---		---		2,259,267	---	---	Memphis and Ohio	2,259,267	141,144		570,000	1,381,000	145,000	---	---	---	---	---	---	---				
1859.	---		---		100,000	---	---	Memphis, Clarksv. & Louiav.	2,000,000	100,000		298,721	740,000	---	---	---	---	---	---	---	---				
1859.	---		---		40.1	7	6	Mississippi and Tennessee	1,137,400			798,285	554,949	519,518	---	59.4	69,870	177,256	60,029	---	---				
1859.	---		---		4	6	46	Mississippi Central and Tenn.	892,710	82,908		317,447	632,500	22,369	---	47.4	54,175	83,129	44,066	---	---				
1859.	---		---		12	2	61	McMinnville and Manchester	533,807	56,510		144,894	406,000	5,000	---	34.2	30,065	25,808	13,892	---	---				
30 Nov. '60	149.7		44.0		39	17	819	Nashville and Chattanooga	3,632,882			2,056,544	1,731,000	---	159.0	---	734,118	837,384	6	---	---				
1859.	---		---		4.2	11.7	5	Tennessee and Alabama	76,016	76,016		595,922	860,000	204,544	---	45.8	57,950	127,963	87,243	---	---				
1859.	---		---		0.6	8.0	---	Winchester and Alabama	---	---	---	216,962	413,000	408,477	---	30.0	---	---	---	---	---				
31 Dec. '62	32.0		---		---	---	---	TEXAS, (all aided by State.)																	
31 Dec. '62	56.0		---		---	---	---	Buffalo Bayou, Braz. & Col'r'do	---	---	---	---	---	---	---	32.0	---	---	---	---	---				
31 Dec. '62	56.0		---		---	---	---	Galveston, Houston, & Henderson	---	---	---	---	---	---	---	56.0	---	---	---	---	---				
31 Dec. '62	56.0		---		---	---	---	Houston and Brazoria	1,250,000	---	---	275,000	240,000	171,530	---	50.0	31,300	32,670	---	---	---				
1 May '60	70.0		---		---	---	---	Houston and Texas Central	4,232,345	---	---	455,000	975,000	369,000	---	70.0	102,200	282,846	190,568	---	---				
31 Dec. '62	25.0		---		---	---	---	San Antonio & Mexican Gulf.	---	---	---	---	---	---	---	25.0	---	---	---	---	---				
31 Dec. '62	28.0		---		---	---	---	Southern Pacific	---	---	---	---	---	---	---	28.0	---	---	---	---	---				
31 May '62	90.7		6.6		19.8	8	12	VERMONT.																	
31 Aug. '62	119.6		10.0		20	18	643	Connect. & Passumpsic Rivers	1,783,542	195,647		1,230,400	800,000	1,808	---	90.7	99,639	164,764	78,749	80	---				
31 Aug. '62	119.6		10.0		20	18	643	Rutland and Burlington	3,989,708	556,275		2,233,376	3,183,038	663,019	6,379,434	119.6	394,393	322,928	61,280	---	---				
31 Aug. '62	62.6		4.0		12	9	549	Rutland and Washington	860,000	221,685		1,097,000			---	62.6	138,299	140,886	24,579	---	---				
31 May '62	117.0		2.0		41	36	889	Vermont Central	8,402,055			5,000,000	3,500,000	1,500,000	---	117.0	679,677	713,418	191,466	60	---				
30 Jun. '62	47.0		8.5		3	6	39	Vermont and Canada	1,678,500			1,378,500			1,378,500	---	oper. by Vt. Central	---	---	---	---				
30 Jun. '62	23.7		0.9		---	---	---	Vermont Valley	1,212,274	89,612		516,164	793,200	110,145	---	23.7	53,041	45,273	7,187	---	---				
30 Jun. '62	69.0		5.5		---	---	---	Western Vermont	1,083,500			332,000	700,000		---	oper. r.b. Troy & Bost.	---	53,552	---	---	---				
1 Aug. '63	41.3		---		122.1	---	---	VIRGINIA.																	
30 Sep. '62	77.8		8.9		9	5	221	Alex. Loudoun & Hampshire	1,492,194	42,000		1,403,018	36,188	88,131	1,634,194	---	---	---	---	---	---				
30 Sep. '62	79.2		4.8		5	2	75	Manassas Gap	2,942,548	210,680		2,969,861	775,500	118,789	---	113.7	703,034	136,502	43,062	---	---				
30 Sep. '62	103.5		---		---	---	---	Norfolk and Petersburg	2,006,873	122,156		1,500,124	590,610	155,161	9 months	79.2	47,702	64,121	16,332	---	---				



## New York Stock Exchange.

Actual Sale Prices for the week ending October 7.

	Th.1	F.2	Sat.3	M.5	Tu.6	W.7.
Buffalo & State Line						
Buffalo, N. Y. & E., 1M.110						
California 7s	122	122		125		
Chicago & Alton	80			80	82	
" pref.		90	91	92		
" 1M.						
" Inc'd's						
Chicago, Burl. & Q.	122	123	125		125	
" 8 p.c.122						
Chic. & Northwest'n	36	36	36	37	39	41
" pref.	53			56		
" 1st M.	90			90	92	94
" 2d M.	67	68	68	69	70	72
" S. F.		106				
" A. B.						
" I. E.						
" Ap. Ex'n.						
" G. B. Ex'n.						
Chicago & Rock Isl.	106	107	107	108	108	109
" 1st M.70						
Clev. Col. and Cin.	101	102	102	104	105	107
Clev. and Pittsburg	101	102	102	104	105	107
" 1M.						
" 2M.						
" 3M.						
" 4M.						
Clev. and Toledo	117	118	119	119	120	
" S. F. 7 p.c.						
Cumberland Coal, pref. 31	31	31	31	34	34	35
Del. & Hudson Canal				161	161	
Del., Lack. & West.						185
" 1M.8 p.c.'11-5						
" 2M.8 p.c.'11-5						
Erie	107	107	107	108	108	110
" pref.	104	104	104	105	104	105
" 1M.7 p.c.'87						
" 2M.7 p.c.'79						
" 3M.7 p.c.'85				112	112	113
" 4M.7 p.c.'80						109
" 5M.7 p.c.'88						109
Ga. and Chicago	108	108	109	111	112	112
" 1M.7 p.c.'85						
" 2M.7 p.c.'76						
" 1M. Ex.'82						
Hann. & St. Jo. pref.						41
" bonds						
Hudson River	131	133	133	134	134	135
" 1M.7 p.c.'69						
" 2M. S. F.						
" 3M.7 p.c.'76				123		
" conv. bonds						
Illinois War Loan	101					
Illinois Central scrip	126	127	128	128	128	
" full stock	113	115				
" Can. b. d. s. 105				107		
" bonds		118				
Indiana War Loan						
Kentucky 6s						
La Crosse & Mil. L. G.						
Michigan 6s, 1878						
Michigan Central	120	121	125	125	124	125
" S. F. 8 p.c.'82						
" conv. s. p. c.'69				120		
M. S. and N. I.	80	84	87	89	88	89
" guar'd. 136					135	135
" 1M. S. F. 113		113	136			113
" 2M.						
Mil. and P. du Chien	66	68	68	72	72	74
" 1st pref.						
" 2d pref.						
" 1st M.						
Minnesota 8s						
Minnesota Mining Co.	85					
Missouri 6s	68	68	68	68	68	69
" ins. to H. & St. J. R.						
N. J. Central 1st M.						
" 2d M.						
New York Central	133	134	134	135	134	136
" 7s, 1864						
" 7s, S. F. 76						
" 7s, conv. 76						
" 6s, S. F. 83						
N. York & Harlem	128	145	143	142	141	140
" pref.						
" 1M.7 p.c.'78						
" 2M.7 p.c.'64 101						
" 3M.7 p.c.'67						
North Carolina 6s						62
Norwich & Worcester						97
Ohio 6s, 1875	103			105		
Pacific Mail S. S. Co.	213	215	216	226	233	248
Panama						188
Penn'a Coal Co.						144
Phila. and Reading	120	123	122	123	123	123
Pitt. Ft. W. & Chicago	82	83	83	85	87	87
" 1M.108						
" 2M.						
" 3M. 86						
St. L. Alton & T. H.	59	60	63	65	65	
" pref.						
" 1M.						
" 2M. pref.						
" Inc'd's						
Tennessee 6s, 1890						
Toledo & Wabash	71					
" pref.						
" 1M.						
" 1M. ex. 104						
" 2M.						
" Int. b'd's						
Virginia 6s						68

## New York Stock Exchange.

Actual Sale Prices for the week ending October 7.

	Th.1	F.2	Sat.3	M.5	Tu.6	W.7.
FEDERAL STOCKS:						
U. S. 5s, 1871, reg.						
U. S. 5s, 1871, coup.						
U. S. 5s, 1874, reg.						
U. S. 5s, 1874, coup.				99		99
U. S. 5s, 1865						
U. S. 5s, 1881, reg.				107		107
U. S. 5s, 1881, cou.	107	107	106		108	108
U. S. 5s, '81, O. W. L. y. 101						
U. S. 5s, 1881, " 4y.						
U. S. 5s, 1867, reg.					104	
U. S. 5s, 1867, coup.						
U. S. 5s, 1868, reg.						
U. S. 5s, 1868, coup.						
U. S. 5s, 1 year cert.					101	102
U. S. 5s, " new 99		99		99	99	
U. S. 5s, 5-20s, coupon					103	
7.30 Notes, Feb. & Aug.	106	106		106		
" Ap'l & Oct. 106	106	106		106		
American Gold	140	142	142	144	145	146

## Philadelphia Stock Exchange.

Actual Sale Prices for the week ending October 6.

	W.30.	Th.1	F.2	Sat.3	M.4	Tu.5.
Beaver Meadow						
Cattawissa	7	7	8		8	
" preferred	24	24	24	24	24	24
Camden & Amboy			175		175	175
" 6s, '67						
" 6s, '70						
" 6s, '75			102	102		103
" 6s, '83			103			
" 6s, '89						105
Ches. & Del. Canal 6s '86			100			
Del. Div. Canal			41		41	
Elmira & W. report	37				37	38
" pref.						
" 7s			108			109
" 10s						
Harrisburg	69					
Lehigh Navigation	58					
" 6s, '106						107
" scrip						
Lehigh Valley R. R.						
" scrip						
" 6s			111			
Little Schuylkill R. R. 47				48	48	
" 7s						
Long Island	46	46				
" 6s						103
Minehill	62	62		62	63	63
Morris Canal						
" pref.				135		135
" 6s '76						
North Pennsylvania	20	20	21	20	20	20
" 6s, '96						
" 10s, 125						
Pennsylvania R. R.	70	69	69	68	69	69
" 1st m.						
" 2d m.						
Penn. State, 5s						
" 5s, coupon				108	108	108
" 6s						
Philadelphia City, 6s	103			103		104
" new, 108				108		
Philad. Germ. & Nor.	60	59	59	58		
Phila. & Reading	59	60	61	60	61	61
" 6s, '80						
" 6s, '70						105
Philadelphia & Erie	26			26	27	28
" 6s				103		104
Philad. & Sunbury, 7s						
Schuylkill Navigation	11					
" pref.				24	24	26
" 6s '82						
" 6s '76						
" 6s '72						
Sunbury and Erie, 7s						
Susq. Canal	15	15	15			15
" 6s '87						
" scrip						
Union Canal, pref.						
" 6s '83				23	24	23
West Br. Canal 6s '78						
Wyoming Canal	60	60	65	65	70	72
Arch street, (Horse)						
Chestnut & Wal.						
Girard College, "						
Green & Coates, "						
Race and Vine, "						
2d and 3d streets, "						
Spruce & Pine, "	15	15	15			15

## Baltimore Stock Exchange.

Actual Sale Prices for the week ending October 5.

	Tu.29	W.30.	Th.1	F.2	Sat.3	M.4	W.5.
Baltimore City 6s, 1875							
" 1886			107	107			
" 1870							
" 1890-108					108		109
Balt. and Ohio	91				91	92	
" b'd's, '62							
" " '67							
" " '75							
" " '80							
" " '85						102	
Northern Central					43	43	45
" b'd's, '85-102							102
" " '90							

## Boston Stock Exchange.

Actual Sale Prices for the week ending October 7.

	Th.1	F.2	Sat.3	M.5	Tu.6	W.7.
Boston and Lowell						
Boston and Maine	128		128			
Boston and Providence						132
Boston and Worcester	130		130			137
Cheshire, pref.	45	45				45
Concord				64		64
Connecticut River						105
Eastern, Mass.	103		102	102	102	102
Eastern, N. H.						102
Fitchburg			115			116
Manchester & Lowell						
Michigan Central	120					
Northern, N. H.						
Old Colony and Fall R.	142				142	143
Ph. W. & Baltimore	68		68		68	68
Port'd, Saco & Ports.						110
Vermont & Canada						
Vermont & Mass.	40	41	41	41	41	42
Western			150			149
Broadway (Horse)						
Cambridge	121		121			
Metropolitan			77			78
Middlesex				108	108	108
Central Mining Co.			54			54
Franklin				51		54
Isle Royale	30	29				30
National	33	34	35	35	35	36
Minnesota						
Pewabic	61	61	62	62	63	64
Pittsburg			76			78
Quincy	86		86			87
Rockland	16		16			17

## London Stock Exchange.

The following were the closing prices for American Securities on the 25th September:

Maryland 5s	73	to	75
United States 6s, 1881	74	to	76
Do. 5s, 1874	68	to	70
Virginia State 5s	48	to	50
Do. 6 per cent.	40	to	42
Atlantic and Great Western, N. Y. sec., 1st mort., 1880, 7 per cent.	78	to	80
Do., Pennsylvania do. do.	77	to	79
Erie shares, \$100 (all paid)	72	to	74
Do., 7s, preference	70	to	72
Do., 7s, 1st mort., 1867	73	to	78
Do., 7s, 2d mort., 1859	74	to	76
Do., 7s, 3d mort., 1883	73	to	75
Do., 7s, 4th mort.	71	to	74
Do., 7s, 5th mort.	72	to	74
Illinois Central 6s, 1875	86	to	87
Illinois Central 7s, 1875	77	to	79
Do. do. \$100 shares, \$90 paid, dis.	12	to	10
Do. do. \$100 shares, all paid	76	to	78
Marietta and Cincinnati Railroad Bonds	75	to	78
Michigan Central 8s, Convertible, 1869	75	to	78
Do. do. S. F. 1st mort., do., '82 x. c.	78	to	82
Michigan S. & N. Indiana 7s, S. F., 1885	70	to	76
Do. do. do. \$100 shares	70	to	76
New York Central 6s, S. F., 1888	70	to	75
Do. do. do. 7s, 1864	65	to	68
Do. do. do. 7s, S. F., 1876	83	to	85
Do. do. do. 7s, Convertible, 1876	83	to	88
Do. do. do. \$100 shares	88	to	90
Panama, 1st mortgage 7s, 1865	101	to	103
Do. 2d mortgage 7s, 1872	101	to	103
Pennsylvania, 1st mort., 6s, Convertible	73	to	75
Do. 2d mort., 6s, do.	87	to	89
Do. \$50 shares	43	to	45
Philadelphia and Reading, \$50 shares	36	to	40

to an extent they have rarely had before, we must expect to see gold and exchange in demand, and more so this season than usual, because the foreign grain crop has been unusually large and satisfactory. Looking over the British board of trade returns for the half years of 1862 and '63, from January 1, to the 30th June inclusive, we perceive what our trade with England has been during those periods, and can only wonder that the British ministry have ever for a moment risked its loss by its sham neutrality. The aggregate of its exports to its twenty-four foreign possessions, great and small is as follows:

	1862.	1863.
To its colonies.....	£12,448,545	£20,396,437
To Germany.....	5,701,050	5,514,890
To France.....	2,786,932	4,537,562

With Italy and Holland it was about half that amount, with Spain, Brazil, China, a little more than half of that, while with the United States, or rather the loyal States of the Union, it was in 1862, £6,449,618, and in 1863, £7,003,128. To go still further. The whole amount of British exports during the six months to all the world, was in 1862, £57,314,679, and in 1863, £62,014,197. Thus we see that our own trade requires and is equal to one-ninth of British foreign and colonial trade, and the only one habitually which makes large remittances in gold, and in fact the only nation in the world, that from its own mines is able to do so.

We also perceive that this trade of ours takes more from England twice over or nearly, than she sends to all Germany or France, is one-third as great as that of her whole colonial possessions on which she expends such vast sums to retain in subjection, and almost four times as much as is required by Italy and Holland, and still much more than is exported to Spain, Brazil and China. It is needless to pursue the comparison, with the trade to any other commercial countries, as the difference is too enormous to afford any necessity for the comparison.

Now the reflection naturally arises, is it worth while for England to gratify its political jealousy of this country, or envy of its rising greatness and lose the advantage of having such a customer, ready to feed her starving population whenever they are crying for food, or equally ready to pay what it owes in gold and silver? Does it show the least spark of statesmanship in British Lords to assist in breaking up this nation, or in British merchants to cut off the best ready money customers they have in the wide world? And yet to this end were our differences fast bringing us until within a few weeks past.

From this view of our commercial and financial connection with England let us turn to our own. Here we find the element of strength and confidence increasing every day. The people as fast as they earn money through the war expenditure, or the profits of ordinary trade are lending it to the Government. The demand for Government securities is on the increase. Even the inquiry for foreign account is getting to be large. The receipts from customs in gold are twice as great as the amounts of interest falling due. Still more surprising, the receipts at the Internal Revenue department are also increasing. For the month of September they were \$6,136,205 43, being half a million more than in any previous month. It was the remark of a new correspondent of the

London Times writing from Saratoga in August, that he was perfectly astonished at the willingness or rather eagerness of the people of the North to pay their taxes, and still more at the composure if not complacency with which they regarded the war debt. There is no doubt that at no period in our history was there ever such a spectacle. We doubt if the history of any other country can present such a one.

The condition of our public debt, at the periods named below, was as follows:

	Five twenties.	Other securities.	Total debt.
April 1....	\$36,593,856	\$845,952,624	\$882,546,480
July 1....	185,684,141	911,590,224	1,097,274,365
Sept. 1....	256,695,100	977,780,000	1,244,430,200
" 30....	264,701,000	992,100,000	1,256,801,000

From this we perceive that the public debt is not increasing as fast as predicted, for while from April to July it had increased by \$214,727,885, from July to October it had only increased \$12,320,800. Indeed it is confidently asserted in official quarters, that the income of the Government from all sources is equal to the aggregate expenditure; a most astounding, interesting and gratifying result. Certainly the financial success of Mr. Chase is without a parallel, and what is better the spirit and resources of the North are also without a parallel. In connection with this view of the subject, every financial writer is bound to take notice of the patent fact, that the confederacy is rapidly on the wane. "Exhausted nature," once said an Englishman of note, in relation to a pending conflict in his own day, "can hold out no longer." The currency of the South is practically worthless. Most of the necessities of life require fabulous amounts of money for their purchase. Intercepted letters show the general conviction that the efforts of the rebels are hopeless. Intelligence obtained from deserting soldiers, from unhappy fugitives, and even from the most reckless and arrogant of the Southern presses, edited under the eye of Jefferson Davis himself, comes to us daily, that all confidence of success is lost among the rebels of every class and condition.

Every apple rebellion plucks from the tree turns to ashes in their hands; and nothing appears more certain, that with the exercise of even a moderate share of ability in our Government the confederates are sure to be overthrown. Even its envoy at the Court of St. James, or rather its purlieus, has been obliged to withdraw his trembling limbs from the door where he has sought relief. And as to the hope of recognition and intervention from France, we imagine that Louis Napoleon is too shrewd under the present aspect of affairs to venture upon such a step. When at public meetings in England within the last two or three weeks, men of influence have called on their Government to withdraw the Queen's proclamation of neutrality, because the rebels have not been able to maintain even the decent appearance of belligerents, but have fallen back by impotence and disaster into the character in which they first appeared, the statesmen of France will remind the Emperor that it is not for him to become this time at least the friend of rebels. It is indeed a thousand pities that our own Government made the mistake of treating the confederates in any other light, since an act of Congress closing the Southern ports would have been a wiser step, and obviated the necessity of any appeal to inter-

national law, or the application of our naval force in the shape of a blockade.

We look for strange changes in Europe, when it hears that one Russian fleet is to winter in New York, and another in San Francisco. We imagine "it will change the hand and check the pride" of many a Foreign Government anxious for our fall.

It is a fortunate circumstance no doubt that loans from abroad were not sought for by Mr. Chase. While on the one hand it would have made its holders our friends *pro tanto*, on the other it would have caused a large exportation of gold for interest. Now the interest paid on the Government loans has been mainly employed by our people at home, and has been largely capitalised and turned into new means of production. It is a sort of compounding of interest of which the nation gets the exclusive benefit, and by which it becomes so much the stronger.

So, too, if the foreign demand now increases largely, it will be an aid in the future to facilitate the resumption of specie payments, since all that is so absorbed is the same as a remittance of specie to this country. So come what may, we are to get out of a paper currency with but little damage. Apropos of our immense metallic resources, existing in Colorado, Idaho and Arizona it may be well to state that mines of lead have been recently discovered at or near Marquette, Lake Superior, which produce \$300 worth of silver to the ton. Here we have another timely addition to the resources of the Government; and what does our national debt of \$1,200,000,000 amount to, when we have according to Dr. Willing, and other undoubted authorities, billions of gold in the surface mines and washings of Colorado alone, and underneath solid masses of the pure metal. He who falters in his estimate of the National wealth is deaf and dumb and blind. The aggregate of our exports of produce and merchandize, for the week ending on Tuesday, was \$2,473,669, and the balance in the Sub-Treasury on that day was \$30,515,243 26.

As we go to press we learn that very large amounts of stocks, nearly three quarters of a million, bonds of 1884 and 5 20's went out in Wednesday's steamer, while in the steamer of Saturday previous nearly a similar quantity went forward.

We may expect this state of things to continue since by the last European arrivals, we hear that the general impression abroad is, that the Confederates have now only two points of defence left, Charleston and Richmond. This is the view taken even by the foreign sympathizers themselves.

We give as usual complete and correct tables of the movements in our money market.

The following quotations of sales of Railway and other securities are in addition to those given elsewhere in our columns:—

New York.—McGregor Western R. R., 90; Indianapolis and Cincinnati, 87; New York and New Haven, 128; Rome, Watertown and Ogdensburg, 95; Ohio and Miss. certificates, 33@34; do., pref., 84@85; Marietta and Cincinnati 1st pref., 57½@70½; do., 2d pref., 37½@49½; Miss. and Mo., 84; do., Land Grant bonds, 62½; Brooklyn and Coney Island R. R., 66; Am. Coal Co., 68; Central Am. Transit Co., 24@32; Canton Co., 31½@35¾; Illinois coupon bonds, 1869, 101; Ohio 6s, 1886, 108; Manhattan Gas Co., 257;



Metropolitan do., 136; Citizens Gas Co., Brooklyn, 128.

**Philadelphia.**—Wyoming Canal 6s, 98½@99¾; Cleveland and Mahoning 7s, 105; Camden and Amboy 6s, 1864, 106; Camden and Atlantic, 11½; do., 2d mort., 70; Philadelphia and Reading 6s, 1849, 110; Elmira and Williamsport chattle 5s, 79½; Huntington and Broad Top, 21@22½; Shamokin Valley, 39; Ridge Avenue, 21; Allegheny Co. 6s, 84; Amigdaloyd, 16½. The latest quotations are: City 6s, 103¾; do., new, 108½; State 5s, 100@100¼; Reading, 61¾@61½; do., 6s, 1848-'80, 109; do., 1870, 105@105½; do., 1886, 122½@123½; Camden and Amboy, 175@176; Pennsylvania R. R. 69½; do., 1st mort., 110@111; do., 2d mort., 105@105½; Little Schuylkill R. R., 48¾@49; Morris Canal, 67@69; do., pref., 135; Susquehanna Canal, 15@15½; do., 6s, 65; Sch. Nav., 12½@12¾; do., pref., 26½@26¾; do., 6s, 1882, 88½@89½; Union Canal bonds, 23½@24; Delaware Div. Canal, 41@42; do., bonds, 103; Elmira and Williamsport, 38@38½; do., pref., 53½@54; do., 7s, 1873, 108@109; Beaver Meadow, 74@75; Harrisburg, 69@70; Long Island R. R., 47@47½; do., bonds, 102@103; Lehigh Coal and Navigation, 58@58½; do., scrip, 46½; North Pennsylvania, 21@21¼; do., 6s, 96@97; do., 10s, 120; Philadelphia and Erie, 28@28¼; do., 6s, 103¾@104; Minehill, 62¾@63; Catawissa, 8@8½; do., pref., 24¾@24¾; Lehigh Valley, 80; do., bonds, 110@111; Frankfort and Southwark (horse), 56; Second and Third, 84@86; Race and Vine, 10@10½; West Philadelphia, 67½; Spruce and Pine, 15¼@15½; Green and Coates, 44¼@46; Chestnut and Walnut, 55@59; Arch, 23@24; Thirteenth and Fifteenth, 34@36; Seventeenth and Nineteenth, 11½@12½; Girard College, 27@28½; Tenth and Eleventh, 43; Philadelphia, Germantown and Norristown, 59.

**Boston.**—Northern (Ogdensburg) 1st mort., 100; do., 2d mort., 25½; Vermont Central 60c.; do., 1st mort., 85½; do., 2d mort., 22; Rutland and Burlington 1st mort., 74; Worcester and Nashua, 82; Southern Midland bonds, 105; South Shore, 14@15; Maine 6s, 1883, 107¾; do., 1880, 108; Brooklyn 7s, 1865, 102¼; Acton Mining Co., 4¾; Albany and Boston, 13¾; Bay State, 16½; Black River, 55c.; Bedford, 60c.; Columbian, 7¼; Copper Falls, 31½; Dana, 4; Dunham, 62½c.; Dudley, 4; Eagle, 6½; Great Western, 4¾; Hancock, 14¾; Hamilton, 2¾; Hanover, 3¾; Huron, 34; Manhattan, 4¾; Mandan, 3½; Madison, 5¾; Mesnard, 15½; North Western, 14¼; North Cliff, 7; Norwich, 5½; Ottawa, 41c.; Pontiac, 9¼; Phoenix, 26; Petherick, 45; South Side, 7¾; Star, 8; St. Mary's, 11¾; Superior, 9½; Toltec, 4½; Wickham, 1½; Winthrop, 4¾.

**Baltimore.**—N. W. Va. 1st mort., 104½; City Passenger R. R., 19; Western Md. bonds, 82; Maryland Copper Co., 1; Springfield Mining Co., 2.15; Santa Clara Mining Co., 8½. The latest quotations are: Balt. and Ohio, 92¼@92½; do., 6s, 1867, 102; do., 1875, 102; do., 1880, 102; do., 1885, 102; Northern Central, 45@46; do., bonds, 1885, 102@102½; N. W. Va., 10@11½; do., 1st mort., 104½@105; do., 2d mort., 100; do., 3d mort., 25@26; Central Ohio 2d mort., 102@107; do., 4th mort., 40; do., income 1857-'60, 24@25; Western Md. bonds, 81½@85; do., guar., 105; Maryland 6s, coupon, 1870, 112@113¼; do., Ins., 110½; do., 1890, 111½; Baltimore 6s, 1875, 109;

do., 1886, 107@107½; do., 1890, new, 109½; do., coupon, 95; do., 5s, 1838-'70, 95@98.

#### Albany and Susquehanna Railroad.

It is but three weeks since we had the pleasure of noticing the formal opening of 35 miles of this road, extending from Albany to Central Bridge. Thence to Oneonta, 45 miles, the road is all under contract, to be completed in the course of another year. Proposals are now invited by C. W. WENZ, Esq., Chief Engineer, for the construction of 45 miles more, extending from Oneonta, in Otsego County, to and including the Tunnel of about 2,000 feet through Webster Summit in the town of Colesville, in Broome Co. The line will be ready for examination on the 19th inst., and maps, plans, profiles, etc., may be inspected, on and after that date at the engineer's office, Unadilla, Otsego Co., N. Y. This will leave but about 15 miles to complete the road to Binghamton.

#### Sleeping Cars! Sleeping Cars!!

We invite the attention of Railroad companies, and the travelling community, to the Advertisements of the "Central Transportation Company," published elsewhere in our columns.

In respect to elegance, convenience and the means of comfort to the traveller, these cars in their internal arrangements, neatly furnished state-rooms and berths, very far excel all others now in use. They are owned by the Central Transportation Company, and conducted by them on the Pennsylvania railroad, the Bellefontaine Line, the Northern Central and the Central New Jersey railroads, under arrangements severally made with these companies, and in a manner not only highly satisfactory to the companies, but (as evinced by the rapidly increasing patronage and other evidences given by the travelling public) in a manner also greatly admired by them. Although this company conduct on other roads, sleeping cars under contracts with the several companies, which serve much to relieve the fatigue of travel, yet none of these, and only a portion of the cars running on the roads above named, contain the company's recent improvements; all of the company's cars, however, are, as is understood, soon to receive them.

The cars of this company, containing their recent improvements, seem to be rapidly growing in public esteem; and the convenience they afford the night traveler for quiet and repose, so far surpasses all other modes, that the interest of railroad companies would, under like conditions and considerations as mutually arranged by them with other railroad companies, unquestionably be benefited by their adoption on all through night lines.

As the Central Transportation Company own, and will control the use of these plans, such railroad companies as are now using an inferior plan, also such companies as would increase the popularity of their lines by the introduction of sleeping cars on their roads, would do well to conclude, at the earliest practicable period, arrangements with this company similar to those of other companies; which would in like manner secure the quiet and permanent use of the best plan, thereby advancing the interests of such railway companies, (by drawing in many instances to their roads an increase of trade,) as well as promote the comforts of the traveller; and these without the danger of infringing patents and being subject to litigation in the future.

#### Cape Cod Central Railroad.

At a meeting of the directors of this road, held in Brewster on the 25th ult., the plans and estimates were submitted to them and approved, and the capital stock of \$200,000 was all subscribed. The necessary papers completing the location of the road were duly prepared and filed with the County Commissioners. It is expected that the whole line will be under contract in a few weeks, and that the grading will be completed next spring.

#### Bessemer Steel Rails.

In their last report, the Directors of the London and North Western Railway Company state that they have been making trials at various points of a new description of rail, made of steel by Bessemer's process. The results are important and satisfactory. Some of these rails were laid down at Rugby, Stafford and Crewe in March, 1862, and are wearing well. In May, 1862, some were laid down at Camden parallel with the best description of iron rail. So severe was the test that the iron rails speedily gave way, and had to be frequently removed worn out, while the steel rails continue to show little appearance of wear. Having regard to the importance of procuring the most efficient rail, so as to avoid the frequent renewal now found necessary on the main line and in the principal stations, the Directors have deemed it expedient to adopt and substitute the steel rail to that extent at least; and, having agreed with Mr. Bessemer as to the royalty to be paid for the use of his patent, they have made the needful arrangements at Crewe for the production of steel to the extent of 19,000 tons per annum.

#### Canadian Ports of Entry.

An important Government order which took effect on the 1st of September last, has changed the character of many of the Canadian Ports, of which fact our own shippers and merchants trading with Canada should take notice. The following ports of entry are abolished, viz., Beauce, Coteau du Lac, Three Rivers, Maitland and Milford. The two last are reserved the privilege of exporting. The following out ports and out stations are also abolished, viz.: Beamsville, Smithville, Thorold, Eaton, Grafton, Huntingdon, St. Anicet, Colchester, Mersea, Lindsay, Morpeth, Rondeau, Pembroke, Ryerse Creek, St. Hyacinthe, and Sorel.

#### A New Steam Engine.

A steam engine has been invented by J. R. Root, of this city, one of which is driving the works in a large machine shop in 28th street, and another drilling the armor plates for the iron clad Dunderberg. It is a remarkable machine in respect to its size and power. In a space 18×10×12 inches, it has a combined piston area equal to the power of nearly 23 horses. The stroke of the piston rod is very short, only 2½ inches. The piston rods are square and two in number. All the movements are in right lines and no shock or jar is produced by them. There is "no rod, link or toggle" to communicate motion to the crank from the piston rods. A strong man can carry the whole apparatus under his arm. Of course it is a high pressure engine. We may inquire into its cost and applicability to machinery, and if so will publish the results. Such engines if really what this is represented to be, must play an important part in our manufacturing establishments.

**New York Canals.**

The quantity of flour, wheat, corn, and barley left at tide water from the commencement of navigation to the 30th of September, inclusive, during the years 1862 and 1863, was as follows:

	Flour, bbls.	Wheat, bush.	Corn, bush.	Barley, bush.
1862..	936,100	21,161,300	15,038,400	442,900
1863..	848,600	12,197,300	18,313,100	255,000

Dec. .... 87,500    8,964,000    \*3,274,700    187,900  
\* Increase.

By reducing the wheat to flour, the quantity of the latter left at tide water this year, compared with the corresponding period of last year, shows a deficiency equal to 1,880,300 bbls. flour.

The following comparative table shows the quantity of some of the principal articles of produce left at tide water from the commencement of navigation, to and including the 30th of Sept., in the years indicated:

Canal opened.	1861. May 1.	1862. May 1.	1863. May 1.
Flour, bbls. ....	787,700	936,100	848,600
Wheat, bush. ....	16,537,100	21,161,300	12,197,300
Corn ..... 14,864,800	15,038,400	18,313,100	
Barley ..... 269,100	442,900	255,000	
Oats ..... 3,546,200	3,074,200	5,573,800	
Rye ..... 503,000	606,400	281,200	
Beef, bbls. ....	1,100	11,400	9,890
Pork, bbls. ....	6,100	150,500	227,900
Bacon, lb. ....	568,900	5,307,300	3,441,100
Butter ..... 282,800	825,900	153,900	
Lard ..... 719,700	7,682,100	18,582,600	
Cheese, lb. ....	477,700	925,600	841,200
Wool ..... 1,272,400	1,575,900	105,600	

**Illinois Central.**

To the Editor of the Railway (London) Times:

SIR,—Amongst the many anomalies in the prices of railway stocks, can any of your readers explain the following, in reference to the shares in the Illinois Central? The shares, \$90 paid, are selling at about 80; the shares, \$100 paid, are also selling at about 80! The difference in price is generally not more than \$1 per share, although one series of the shares is receiving (as above) dividend on \$100 and the other on \$90; I am aware that the larger amount has received by prepayment a dividend of \$2 per share, and that to that extent the \$90 shares have a claim for preference in value; further, if a \$90 share be valued at about 10 dis., the same calculation would make the \$100 11 dis. This explains \$3, but what of the other \$7 is the mystery?

The whole stock is rapidly rising, justified by a present traffic that indicates 7 or 8 per cent. dividend (quite independently of the singularly valuable land resources,) and yet the relative distance in market value continues.

I am curious to witness the result when the shares command a premium. Will the dividend and value of the extra ten dollars, in a dividend paying line which commands a premium, be considered an evil, and prejudice the holder in the market in comparison with a stock receiving a smaller dividend?—I am, &c.

JOHN BENSON.

[We understand that the \$90 shares are bought in the English market to supply sales made in New York, where the "Bulls" are trying to "corner" the Bears, and will not take paid-up shares in lieu of \$90 in fulfilment of contract.]—Ed. R. W. Times.

**Valuation of Portland.**

The valuation of Portland for the year 1863, is \$25,111,204, of which \$14,423,000 is real, and \$10,688,204 personal. Increase in one year \$1,804,500, principally in personal estate. In 1850 the valuation of the city was only \$13,364,238, showing an increase of \$11,746,976 in thirteen

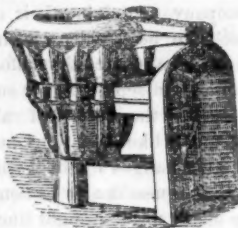
years. The amount raised by taxation is \$369,559, and the rate \$1 44 per hundred.

**British Railway Equipment.**

The number of locomotives possessed by English companies at the close of 1862, was 5,140; of passenger carriages, 12,584; of other vehicles attached to passenger trains, 4,891; of wagons or trucks used for the conveyance of minerals, live stock, and general merchandize, 153,589; and of other carriages or wagons, 4,270—making a total of 180,474. At the same date the number of locomotives at work on Scottish railways was 885; of passenger carriages, 1,854; of other vehicles attached to passenger trains, 623; of wagons or trucks used for the conveyance of minerals, live stock, and general merchandize, 27,952; and of other wagons, 188—making a total of 31,503. The railways of Ireland, again, possessed at the same date 373 locomotives, 927 passenger carriages, 423 other vehicles attached to passenger trains, 5,513 wagons or trucks used for the conveyance of minerals, live stock, and general merchandize, and 309 other wagons—making a total of 7,545. We thus arrive at a total for the United Kingdom of 6,393 locomotives (which, at 2,600*l.* each, would represent a capital of 16,634,800*l.*), 14,565 passenger carriages, and 197,758 vans, trucks, &c.—making a combined grand total of 218,716. The value of this immense plant must be estimated at 40,000,000*l.* It may be added that each mile of railway in England possessed last year 22 vehicles of various kinds (including locomotives,) while each mile in Scotland had only 18, and in Ireland barely 5.

## BROWNE'S METALLIC WEATHER STRIPS AND Window Bands.

TOTALLY exclude rain, wind and dust from, and stop the rattling of doors and windows of every description, without interfering with the free use of the same at all times. They save one half the fuel in winter. For Circular, with references, address the PATENT METALLIC WEATHER STRIP CO., 312 Broadway, corner of Fulton st. Local Agents wanted everywhere. 6m41



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With an unparalleled mass of unimpeachable testimony of well-known Citizens, Ministers, Doctors, Lawyers, Merchants, Mechanics and others.

Send for pamphlet containing full description and testimonials.

**SANFORD, TRUSLOW & CO.,**  
Nos. 239 and 241 Water st., N. Y.

**Central Transportation Co.**

THIS Company, a Corporation organized in pursuance of a General Act of the Legislature of the State of Pennsylvania, having, by purchase, recently become the sole owner of

**WOODRUFF'S, KNIGHT'S, MYERS' AND OTHER PATENTS FOR SEATS AND COUCHES IN SLEEPING CARS.**

would respectfully give notice to all RAILROAD COMPANIES IN THE UNITED STATES, that they may desire Sleeping Cars on their Roads, that this Company are now prepared to negotiate for placing, wholly at its own expense, on such Railroads as may require them, their

**SLEEPING CARS,**

and operate them upon terms at once liberal and satisfactory to RAILROAD COMPANIES.

The Cars of this Company are constructed of great strength, and contain their late improved and patented plans of Seats and Couches, with STATE ROOMS AND BERTHS, finished in a style the most elaborate and tasteful, and are furnished with all of the modern conveniences and means of comfort usually found in the SLEEPING APARTMENTS OF OUR FIRST-CLASS HOTELS. The interior is lighted with gas; they are well ventilated, and at seasons of the year requiring it are warmed with pure heated air, regulated in degree at pleasure by registers in each State Room and section.

Where known, these Cars are not only regarded as indispensable on all through NIGHT TRAINS, but have become desirable, above all others, as DAY CARS.

Communications from the officers of Railway Companies desiring Sleeping Cars on their Roads, addressed to the Central Transportation Company at their office, No. 1347 Brown

st., PHILADELPHIA, will receive immediate attention. Railway Companies using, or permitting to be used on their respective lines, Sleeping Cars or Couches, that infringe upon the patents owned by this Company, are respectfully notified that satisfactory arrangements for such infringement will be expected. Address as above.

**O. W. CHILDS, President.**

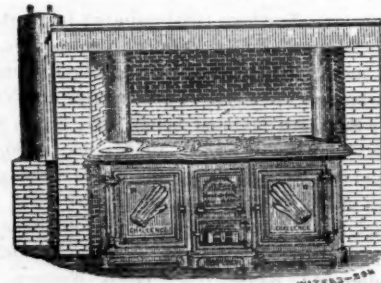
## The COSMOPOLITE PARLOR RADIATOR, & GAS BURNER,



Introduced one year ago, already ranks as the LEADING STOVE for PARLORS, SITTING ROOMS, and all places where a soft, pleasant heat is desired. Fire may be kept all winter with an astonishingly small supply of coal. Send for description and testimonials.

**SANFORD, TRUSLOW & CO.,**

Nos. 239 and 241 Water st., N. Y.



## Challenge Air-tight KITCHEN RANGES,

May be placed in a fire-place without masonry, and with or without water-back; or may be set out on feet, as an ordinary stove.

This range, already very popular, has the LARGEST OVEN of any in the market; BAKES PERFECTLY, never gets brown at the bottom; BOILS, ROASTS and and BROWN with unequalled facility and dispatch, and with extraordinary ECONOMY OF FUEL, which may be either coal or wood. Flues large and easily cleaned. A child can manage it, so simple is its construction. Castings extra heavy, and design plain and chaste. Four sizes, adapted to families and hotels.

## Beacon Light SUMMER AND WINTER PORTABLE RANGE,



Is a very popular range, having six boiler holes, one large oven that bakes perfectly, with an arrangement for roasting, or heating irons at the end. It is very economical of fuel. For a FEW DOLLARS a family may be supplied with a PERFECT COOKING APPARATUS, equal to the highest price stove in the market. Three sizes, adapted to coal, or wood.

**SANFORD, TRUSLOW & CO.,**

239 and 241 Water st., N. Y.



# KRUPP'S PATENT CAST STEEL RAILWAY TIRES

These Celebrated Tires  
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**WITHOUT A WELD.**  
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## FRIED. KRUPP,

ESSEN, RHENISH PRUSSIA.

By their extreme dura-  
bility they are more eco-  
nomical than any others,  
being cheaper at their cost  
than Iron ones gratis.

THESE TIRES have been furnished to the following American Railways: Erie; Hudson River; Camden and Amboy; Housatonic; Naugatuck; New Haven; Chicago, Burlington and Quincy; Quincy and Toledo; Ohio and Mississippi; Beaver Meadow; Central Georgia; Don Pedro 2nd (Brazil); Grand Trunk, Great Western (Canada); European and North American (N. B.); Cleveland and Mahoning; Cleveland, Painesville and Ashtabula.

STEAMBOAT SHAFTS. KRUPP'S CAST STEEL RAILWAY AXLES. ANCHOR FLUKES.

CITY RAILWAY COMBINATION WHEELS AND AXLES.

PROPELLER BLADES, ETC., ETC., ETC.

### LAP-WELDED IRON BOILER TUBES.

TUBE EXPANDERS. TUBE BRUSHES. THREE-CUTTER DRILLS.

Glass-Enamelled Iron Water Pipe, Steel Tubes, etc., etc.

They wear equally and  
are free from lamination.  
They are not liable to  
fracture and are unaffected  
by extreme cold.

They have received the  
highest approval from all  
RAILWAY COMPANIES  
that have them in service.

## THOMAS PROSSER & SON,

28 PLATT ST., NEW YORK.

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#### STEEL CONVERTERS,

Cast Steel Refiners, Tilters and Rollers.

MANUFACTURERS OF

SINGLE AND DOUBLE SHEAR, RAILWAY, COACH,  
SPRING GERMAN AND BLISTER STEEL.

ALSO

HARD CENTRE AND CORE ANNEALED STEEL,  
LOCOMOTIVE SLIDE BARS,  
PISTON RODS, ETC., ETC.

Ponds and Navigation Steel Works,  
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AND  
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ALSO AGENTS FOR  
B. & S. H. THOMPSON,  
Late Wm. CHANCE & Co.,

GENERAL HARDWARE & IRON MERCHANTS,  
BIRMINGHAM.

#### A Good Chance for Investment.

WANTED a Partner with a capital of about \$40,000,  
to join in Machinery and Iron Ship Building busi-  
ness, in a most favorable location on tide-water and rail-  
roads. Address Business Partner, care of A. F. KIND-  
BERG, 25 Rector st., New York.

#### NOTICE TO BUILDERS OF RAILROAD CARS.

THE CENTRAL TRANSPORTATION COM-  
PANY will receive proposals from Car Builders  
until the 20th day of October next, at their office

No. 1347 BROWN ST., PHILADELPHIA,  
for constructing FIVE SLEEPING CARS—said cars  
(excepting the Quilts, Comforts, Sheets, Pillow-Cases  
and Towels to be furnished by the Company) are to be  
fully equipped and in all respects completed and deliv-  
ered ready for use by the 20th day of February, 1864.

For a full knowledge of the plan and dimensions of  
said Cars in all their parts, and of the kind and quality  
of the materials to be used, the character of workman-  
ship and the style of finish required, reference may be  
had to Cars Q, R, S, and T, now running on the PENN-  
SYLVANIA CENTRAL RAILWAY; to Cars M and  
N, on the BELLEFONTAINE LINE; to Cars O and  
P, on the NORTHERN CENTRAL, and to Car T, on  
the NEW JERSEY CENTRAL RAILROADS.

Persons whose propositions may be accepted, will be  
required immediately to enter into contract to construct  
the aforesaid Five Cars similar to, and in all respects as  
perfect as the Cars above referred to, either of which  
may be made the basis of a proposition, in which  
should be stated the price per car.

Good and sufficient security will be required for the  
faithful performance of the work, and the contract  
will provide for monthly payments to the contractor,  
as the work progresses.

Proposals will also be received at the same time  
and place for the construction in like manner, and of  
the same description as the five above named.

#### Twenty Additional Sleeping Cars,

to be completed within the year 1864. The proposals  
should also state the price per Car, for all or such por-  
tion of the whole number as the proposer can complete  
and deliver within the first four months; also the price  
per Car for all, or such portion of the whole number.  
as the proposer can complete and deliver within the  
first eight months, next succeeding the 15th day of  
February, 1864.

The Company reserve the right to reject all proposi-  
tions which they may deem unfavorable. All proposi-  
tions addressed as above, to the CENTRAL TRANS-  
PORTATION COMPANY, must be sealed and en-  
dorsed "PROPOSAL for BUILDING SLEEP-  
ING CARS."

241

O. W. CHILDS, President.

KING'S NOTES ON STEAM. LESSONS AND  
Practical Notes on Steam. The Steam Engine, Prop-  
ellers, etc., etc., for young Marine Engineers, Students,  
and others. By the late W. R. King, U. S. N. Revised  
by Chief Engineer J. W. King, U. S. Navy. Fourth Ed-  
ition, enlarged and improved.

"This is the second edition of a valuable work of the late W.  
R. King, U. S. N. It contains lessons and practical notes on  
Steam and the Steam Engine, Propellers, etc. It is calculated  
to be of great use to young marine engineers, students, and  
others. The text is illustrated and explained by numerous  
diagrams and representations of machinery. This new edition  
has been revised and enlarged by Chief Engineer J. W. King,  
U. S. N., brother to the deceased author of the work."—(Boston  
Daily Advertiser.

"This is one of the best, because eminently plain and practical  
treatises on the Steam Engine ever published."—(Philadel-  
phia Press.

"Its republication at this time, when so many young men are  
entering the service as naval engineers, is most opportune.  
Each of them ought to have a copy."—(Philad. Ev. Bulletin.

In one volume octavo, with illustrations, price \$2.  
Copies sent free by mail on receipt of price. Published  
by D. VAN NOSTRAND, 192 Broadway, New York.

#### NOTICE TO CONTRACTORS.

### ALBANY AND SUSQUEHANNA R. R.

SEALED PROPOSALS WILL BE RECEIVED  
by the undersigned at the Engineer's Office, in the  
village of Unadilla, Otsego county, until Thursday, the  
29th day of October instant, at 10 o'clock A. M. of that  
day, for Grading, Masonry, Bridging and Fencing of  
about 45 miles of the line of said railroad, extending  
from the village of Oneonta, in Otsego county to and  
including the Tunnel of about 2,000 feet through  
Webster Summit, in the Town of Colesville, in Broome  
county.

The line will be divided into Sections of convenient  
length, and proposals will be received for single Sections,  
or for the whole line.

The line will be ready for examination on and after  
Monday, the 19th inst., and Maps, Profiles and Plans,  
with Specifications may be examined at the Engineer's  
Office, in Unadilla, on and after that date.

Blank proposals, with all necessary information, will  
be furnished to those wishing to propose for work, at  
the Office of the Company, 73 State Street, Albany,  
and at the Engineer's Office, in Unadilla.

Proposals should be enclosed in an envelope and en-  
dorsed "Proposals," and directed to the undersigned  
at Unadilla.

The proposals which may be received in pursuance  
of this notice will be opened by the undersigned and  
canvassed, and the results reported to the Directors to  
aid them in making a proper award of the work.

Parties proposing, who are unknown to the under-  
signed, will be required to give satisfactory references.  
The right is reserved to reject any or all proposals,  
as may be deemed for the interests of the Company.  
Albany, October 1st, 1863.

C. W. WENTZ, Chief Engineer

### SANFORD'S MAMMOTH OR GLOBE HEATERS.



The best stoves for RAILROAD  
DEPOTS and SHOPS, and all places  
where a great heat is required. They  
are very durable, and very economical  
of coal.

Beware of imitations that are infe-  
rior in strength and in other respects.

#### TESTIMONIALS.

HUDSON RIVER RAILROAD OFFICE, N. Y.  
This Company have now in use, over two hundred of San-  
ford's Mammoth Heaters, in Station Houses, Work Shops, and  
Engine Houses; we commenced using them in 1853, and some  
of the first stoves put up are still good and in use. We con-  
sider them the best Heaters now in use.

J. M. HEBARD, Supply Agent.

UNION FERRY COMPANY.

The Mammoth Heaters have been used by this Company in  
their waiting rooms at the several ferries and found to be very  
excellent stoves and more durable and valuable than any here-  
tofore used.

CYRUS P. SMITH, Managing Director.

MANUFACTURED AND SOLD BY

### SANFORD, TRUSLOW & CO.,

Nos. 230 and 241 Water street, New York,





**Platt, Johnson & Co.,**  
BANKERS and BROKERS,  
49 WALL ST., N. Y.

DEALERS IN

GOVERNMENT SECURITIES & GOLD.

**STOCKS AND BONDS**

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ALSO DEALERS IN

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MONEY INVESTED, AND

NOTES AND LOANS NEGOTIATED

ON THE BEST TERMS.

**SAMUEL HALLETT & CO.,**  
BANKERS,

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NEW YORK CITY.

DEALERS IN

Foreign and Domestic Exchange,

AND NEGOTIATORS OF

STATE AND RAILROAD BONDS.

**HALLET & CORNWELL,**

No. 24 PINE STREET,

**Note & Exchange Brokers,**

STOCKS, BONDS AND GOVERNMENT SECURITIES

BOUGHT AND SOLD ON COMMISSION.

JACOB G. HALLET, (late with Blake Bros. & Co.)  
RICH'D H. CORNWELL (late with G. S. Robbins & Son)  
New York, February 14, 1863.

**THE BRITISH AND AMERICAN  
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Established under the Companies' Act, 1862,  
WITH LIMITED LIABILITY.

AUTHORIZED CAPITAL, ONE MILLION STERLING.

In 20,000 shares of £50 each.

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LONDON—Manager, John Skinner, Esq.  
LIVERPOOL—Manager, Wm. Williamson, Esq.  
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**J. W. CROSS, Esq., 2d Assistant Manager.**  
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NEW YORK—THE BANK OF AMERICA.

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Having opened offices at No. 63 WALL ST., NEW YORK, is prepared to sell and buy Sterling Bills of Exchange and to issue Commercial and Travelers' Credits, available in all parts of the world. Commercial Credits issued for use in the East Indies, China and Australia, will be upon the Oriental Bank Corporation of London.

Further particulars may be ascertained on application at the office, No. 63 Wall St.

**WILLIAM WOOD, Manager.**  
New York, August 24, 1863.

**EDWARD KING,**  
(Late of the firm of JAMES G. KING'S SONS.)  
OFFERS his services at the Board of Brokers for the purchase or sale of  
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**STOCKS AND BONDS**  
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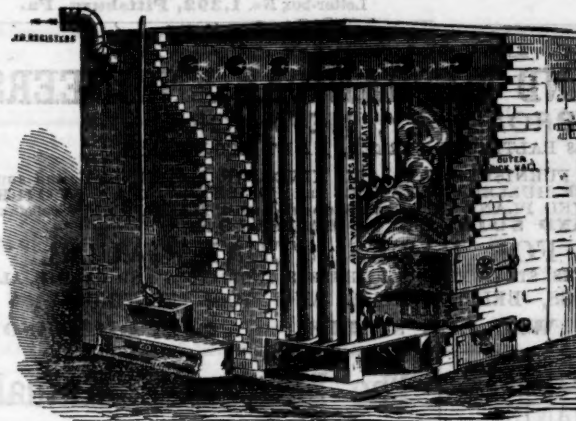
**WILLIAMS & PAGE'S  
PASSENGER CAR LAMPS**

FOR KEROSENE OR COAL OILS.

THESE Lamps, now in use on a large number of Railroads are very neat and ornamental, and being enclosed in a Brass Case which is firmly secured to the side of the car, entirely avoid the dripping of oil on Passengers and Car Cushions.  
The Light is very strong and brilliant, requiring no reflectors, and lighting up the Cars so as to give them that bright and cheerful appearance so much desired by roads for the pleasure and comfort of their Passengers. These Lamps are strong and durable, and are as easily taken care of as any in use. A full sized drawing sent when requested.  
For Cars with "raised" or "high" roofs we make these Lamps with brass arms to suspend in any required manner.  
Manufactured and for sale by

**WILLIAMS & PAGE,**  
67 Water St.,  
Boston, Mass.

**SIMONDS' PATENT STEAM HEATER.**



FOR Warming and Ventilating Buildings of all descriptions, Greenhouses, etc.  
THIS HEATER HAVING BEEN THOROUGHLY TESTED, has proved to be the MOST PERFECT WARMING APPARATUS IN USE. Parties having them in use, and to whom reference can be given, give them the highest recommendations.

Those requiring a SAFE AND PERFECTLY EFFICIENT APPARATUS FOR WARMING PURPOSES, are invited to call and examine before purchasing elsewhere.  
Personal attention given to erecting the same, and a guarantee given for their successful operation.

**J. H. SIMONDS,**  
Sole Proprietor,  
52 CLIFF ST.,  
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The following Materials for the use of ARCHITECTS, DRAFTSMEN and ENGINEERS, for sale by

**AMES & BARNES,**  
No. 41 JOHN STREET, NEW YORK.

**E. BROWN & SON'S.**

PROFILE PAPER, Plate No. 1.

CROSS SECTION PAPER, Plate No. 2, five spaces to the half inch, in Red.

do. do. do. do. do. do. in Blue.

CROSS SECTION PAPER, five spaces to the inch.

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**Whatman's English Hand-made Drawing Paper,**

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CAP	14x17	SUPER-ROYAL	19x27	COLUMBIA	24x36
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MEDIUM	18x24	ELEPHANT	23x25	ANTIQUARIAN	31x53
ROYAL	19x24	ATLAS	26x33		

Either of the above sizes mounted upon Muslin.

WHITE DRAWING PAPER, IN ROLLS, from 40 inches to 56 inches wide.

Do. do. do. mounted upon Muslin.

BROWN ROLL DRAWING of various widths.

ENGLISH CLARIFIED TRACING CLOTH, 24 and 36 inches wide.

Do. do. AND CLEARED TRACING CLOTH, 24 and 36 inches wide.

FRENCH "VEGETAL" TRACING PAPER of Royal, Super-Royal, Imperial, Columbia, and Double Elephant size. PROTRACTORS in Boxwood and Ivory. SCALES in Boxwood and Ivory. SECTORS in Boxwood and Ivory. ENGINEERS' AND ARCHITECTS' BOXWOOD PLOTTING SCALES, 6, 12, and 24 inches long, of assorted divisions.

BOXWOOD TRIANGULAR PLOTTING SCALES, 6, 12, and 24 inches long, of assorted divisions.

ORDINARY DRAWING SCALERS, Series A, B, C, D, E, and F, 1, 2, 3, 4, 5, and 6 inches to the foot.

Do. do. do. do. do. B, 3, 32, 1, 3-16, 5-16, 1, and 1/2 inches to the foot.

Do. do. do. do. do. C, 1, 20, 30, 40, 50, and 60 parts to the inch.

SOLID TRIANGLES.

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T SQUARES.

**SCROLLS OF VARIOUS PATTERNS AND SIZES.**

GUNTHER'S BOXWOOD SCALES, 12 and 24 inches long.

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ENGLISH EBONY PARALLEL RULES, 6, 9, 12, 15, 18, 21, and 24 inches long.

THUMB TACKS in Brass and German Silver, different sizes and qualities.

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DIVIDERS, 4, 5, and 6 inches in Steel and German Silver, of various qualities.

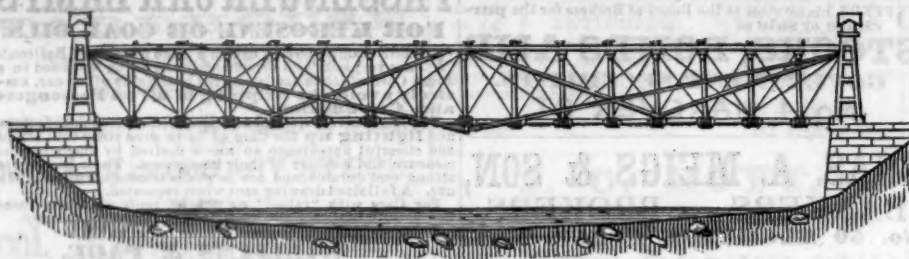
FRENCH PROPORTIONAL DIVIDERS.

ENGLISH MATHEMATICAL INSTRUMENTS, in Fish Skin, and Mahogany Cases.

FRENCH MATHEMATICAL INSTRUMENTS in Brass, Double Gilt, and German Silver, from \$2 to \$75 per Case.

CHESTERMAN'S ENGLISH TAPE LINES 50, 60, 70, 80, and 100 feet, in tenths and links.

## FINK'S PATENT IRON RAILROAD BRIDGE.



THE undersigned is prepared to manufacture and build in any part of the United States and Canada, at reasonable terms, **FINK'S PATENT IRON BRIDGE** in spans from 20 to 300 feet. The same is favorably known, well tested and already extensively introduced, is stronger and more economical than any other Bridge now in use, requires no repairs, and no adjustment, but is perfectly adjustable. For plans and particulars apply to

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PLANS AND SPECIFICATIONS FURNISHED FOR ALL KINDS OF MACHINERY, and superintended during construction, RICE HULLERS, CLEANERS and POLISHERS. GAS WORKS ERECTED ON THE MOST APPROVED PLANS. New and Second-hand MACHINERY constantly on hand. IRON BOUGHT AND SOLD ON COMMISSION.

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**PATENT OFFICE.**  
ESTABLISHED 1842.

DURING the past twenty years, Messrs. MUNN & Co., in connection with the publication of the WEEKLY ILLUSTRATED SCIENTIFIC AMERICAN, (the only paper devoted to the Mechanic Arts in the country,) have acted as Attorneys for procuring letters patent in the United States and all foreign countries.

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In fact, they have become identified with the whole brotherhood of inventors and patentees, at home and abroad. Thousands of inventors for whom they have taken patents have addressed to them most flattering testimonials; and the wealth that has inured to the inventors whose patents were secured through their office, and afterward illustrated in the SCIENTIFIC AMERICAN, would amount to many millions of dollars!

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For further information, send for a pamphlet which contains the Patent Laws of the United States, and much other valuable information of importance to inventors and all others who own patent property. Also pamphlets of information furnished regarding the Patent Laws of all foreign countries.

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**INSURANCE**  
COMPANY,

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ASSETS OVER \$1,250,000.

MARINE and Inland Transportation risks on Vessels, Freight and Merchandise insured on the most favorable terms.

Policies are issued, loss, if any, payable in Gold, or at the office of RATHBONE, BROTHERS & CO., Liverpool, if desired.

Parties effecting insurance at this office may participate in the Scrip dividend of profits, or receive an equivalent cash discount, at their own option.

The risk of war covered at the lowest current rates.

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**CHAS. NEWCOMB, Vice Pres't.**  
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**ALEXANDER'S**  
**ROOFING**  
**CEMENT-PAINT**

FOR

**Railway & Steamboat Co's,**  
**BUILDERS and BUILDINGs generally.**

THIS PAINT is warranted not to Crack or Scale either on Wood, Iron, Tin, or Canvas.

The ingredients in its composition are all of a preserving and protective nature. This Paint is now extensively used by Railway Companies and pronounced much cheaper, more durable and satisfactory than what was previously used. It is 2 1/2 lbs heavier in body than any other Paint.

Give this Paint a trial, and if not found as represented no charge will be made for it.

Send for descriptive circular and references.

**W. G. PERKINS, Gen'l Ag't,**  
**271 Broadway,**  
**NEW YORK.**

SUBSTITUTE FOR  
**CAR DUCK.**

**Kingman's Car Covering.**

THIS is a heavy Canvas imbedded in a coat of Elastic Mastic or Paste which is applied directly to the boarding of the top of the car, and then thoroughly painted with three or four coats of paint, thus making a covering VERY MUCH LIKE CAR DUCK, but at this time at half the cost. It is now successfully used by many Railroads and Car Builders. Directions and particulars when requested. This Mastic and Canvas for sale by

**WILLIAMS & PAGE,**  
67 Water street,  
Boston.

March 1863.

**HAMILTON E. TOWLE,**  
CIVIL AND MECHANICAL ENGINEER  
OFFICE, 156 BROADWAY,  
NEAR MAIDEN LANE, NEW YORK.

REFERENCES:  
Hon. MOSES H. GRINNELL, New York. J. MUNROE & Co., Bankers, N. York and Paris. Hon. JOHN P. HALE, Washington. B. F. DELANO, U. S. Naval Constructor. G. J. F. BRYANT, Architect, Boston. J. W. EMERY, Pres. Cambridge Railroad.

**SMITH'S**  
**Railroad Air Light Comp'y.**

THIS COMPANY OWNS THE EXCLUSIVE RIGHT of SMITH'S AIR LIGHT FOR RAILROADS, and is prepared to sell to Roads the right to use the same. We have arrangements perfected for furnishing Lamps and Burners at about the same price charged for the Oil and Kerosene Lamps by other Manufacturers.

That Railroad Managers may know the value of this LIGHT, we annex letters from the Hon. CHAUNCEY VIBBARD, the General Superintendent of the New York Central Railroad, and also from the Master Mechanics of the same road, showing its comparative cost with that of Oil Lights:

NEW YORK CENTRAL RAILROAD,  
GENERAL SUPERINTENDENT'S OFFICE,  
ALBANY, November 15, 1862.

TO THE MANAGERS OF RAILROADS:

Gentlemen,—This Company has adopted and is furnishing all their locomotives with the "SMITH AIR HEAD LIGHT."

They do this both on account of economy and the very superior light it affords.

We regard it as vastly superior to any light that has ever been produced, and commend it to the consideration of railroad managers.

Very respectfully, etc.,

**C. VIBBARD, Gen'l Sup't.**

NEW YORK CENTRAL RAILROAD,  
MASTER MECHANIC'S OFFICE,  
WEST ALBANY, January 28, 1863.

DR. GEORGE HAND SMITH:  
Dear Sir,—Below please find the cost of locomotive lamps burning oil on this division.

Supposing oil cost \$1 57 per gallon.

Cost per hour, 5 cents.

Cost of wicks, chimneys, per year, \$4 80.

Estimated cost of leakage, gumming and overflow, one-fourth of the consumption.

In the year 1861, when the lamps were all oil burners, the cost of repairs were \$10 20 per year.

You will please add the overflow to the actual cost per hour, which would make 6.25 per hour.

Your most obt's servant,

**EDWARD H. JONES,**

Master Mechanic, Eastern Division.

300 days, 5 hours each day, 1,500 hours, 6 1/4 c. per hour . . . \$93 75

Repairs of lamps for one year . . . 10 20

Wicks and chimneys . . . 4 80

\$108 75

NEW YORK CENTRAL RAILROAD,  
MASTER MECHANIC'S OFFICE,  
ROCHESTER, Feb. 2, 1863.

DR. GEORGE HAND SMITH:  
Dear Sir,—In answer to your inquiries in reference to your Air Light, I would state that we have upon this division of the road 28 of your lights on our first class passenger and freight engines. I find the light consumes about five feet of common gas per hour, which, at the price of gas at this place, 2 1/2 c. per thousand, makes the cost of light for each engine 1 1/4 cents per hour.

Renewing my often expressed opinion that your light, for its reliability, its economy and superiority, far exceeds any light heretofore used on engines,

I remain, very truly, yours, etc.,

**DAVID UPTON,**

Master Mechanic, Western Division.

300 days, 5 hours each day, 1,500 hours, 1 1/4 c. per hour . . . \$18 75

One-sixth waste of gas . . . 3 12

Repairs of lamps for one year . . . 5 00

\$26 87

Further information may be obtained at the office of the Company, 21 Nassau st., or by addressing

**CHAS. W. WELSH,**  
Secretary.